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INSECT NOTES FROM COSTA RICA IN 1936

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This paper is a continuation of the supplements being published each year in the Insect Pest Survey Bulletin on the collection records made by C. H. Ballou. The previous publications are Supplements to No. 4, Vol. 15, 1935, and Supplement to No. 9, Vol. 15, 1936. The present paper does not include the entire collection records for the year, but only those giving additional data to the preceding lists. The plants are those from which the insects were collected and do not in all instances indicate the food plants. If the insect was feeding, the plant name is followed by "f" and if it was destroying the plant or ruining the crop, by "F".

Although a few localities new to the lists have been added, it is not thought practicable to reissue the map this year.

COLLECTED

Insect and locality	Collected on	Date and notes
ANTHICIDAE		
Notoxus eximius Champ. Paso Ancho	Cestrum lanatum Cestrum macrophyllum Coix mayuen Ficus carica	Linum usitatissimum Tournefortia foetidissima Trichilia havanensis Watsonia sp.
BRENTHIDAE		
Brentus mexicanus Boh. Paso Ancho Rancho Redondo Waldeck	Cestrum nocturnum Citharexylum caudatum Elaphrium sinaruba	Impatiens balsamina Pennisetum clandestinum "Tora blanca"
BUPRESTIDAE		
Agrilus fuscillatus Chevr. Santa Ana	Buddleia sp.	July
Brachys anthrenoides Wtrh. Paso Ancho	Inga roussoviana	April
Chrysobothris costaricana Obenberger San Pedro	Coffea arabica	December
Chrysobothris convexiusculatus Wtrh. San Rafael de Coronado	Rosa sp.	March
Liopleura nodiery Thery Paso Ancho San Pedro	Cucurbita pepo Eugenia jambos Ficus sp.	September to December
Lius hoscchei Obenberger San Pedro	Vernonia brachiata	April

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Pachyschelus pittieri</i> Fisch. Paso Ancho	<i>Inga roussovia</i>	March, June, November
CANTHARIDAE		
<i>Belotus abdominalis</i> (Lec.) San Pedro	<i>Persea americana</i>	June
<i>Chauliognathus histrio</i> (Dej.)	<i>Acnistus arborescens</i> <i>Citrus limonia</i>	May, June
<i>Chauliognathus oedemeroides</i> Gorh. Paso Ancho San Pedro	<i>Asparagus officinalis</i> <i>Dombeya wallichii</i> <i>Inga roussovia</i>	October to December
<i>Diaphron proteum</i> Gorh.	<i>Citrus limonia</i> <i>Cucurbita pepo</i> <i>Coffea arabica</i> <i>Diphysa robinoides</i> <i>Euphorbia hoffmanniana</i>	
<i>Discoodon plicatum</i> Gorh. Paso Ancho San Pedro	<i>Persea americana</i> <i>Eriobotrya japonica</i>	June, December
CARABIDAE		
<i>Calleida chryseis</i> Bates Paso Ancho San Pedro Tarrazu	<i>Acnistus arborescens</i> <i>Cornutia pyramidata</i> <i>Malpighia glabra</i> <i>Persea americana</i>	May, June, August
<i>Euproctus metricus</i> Bates San Pedro	<i>Persea americana</i>	October
<i>Lebia charilla</i> Bates San Pedro	<i>Persea americana</i>	June

Insect and locality	C o l l e c t e d o n	Date and notes
Leptotrachelus puncticollis Bates San Isidro del General	Zea Mays	June
CERAMBYCIDAE		
Adesmus druryi Thoms. Paso Ancho San Pedro	Acnistus arborescens <u>f</u>	October, December
Adesmus spectabilis Bates Paso Ancho	Acnistus arborescens <u>f</u> Eriobotrya japonica	September
Adetus muticus Thomson San Pedro	Spondias purpurea	May
Antodice cretata Bates		June
Compsa textilis Thoms. San Pedro	Persea americana	
Dorcasta geometrica Bates San Pedro	Chayota edulis	July
Erana leuconoe Bates San Pedro	Ipomoea tiliacea	June
Eucharassus dispar Bates Guadalupe	Erythrina rubrinervia	June
Evander unicolor Bates Santa Elena de Tarrazu	Inga tonduzii	January
Hippopsis lemniscata (F.) Paso Ancho	Coix mayuen Inga roussoviana	May, July, November
	Vernonia brachiata	

Insect and locality	C o l l e c t e d o n	Date and notes	
Neoclytus cacticus (Chevr.) Waldeck	Theobroma cacao	April	
Nyssodrysina haldemani (Lec.) Waldeck	Theobroma cacao	April	
Ochresthes pollinosus (Chevr.) Paso Ancho	Cosmos sulphureus <u>f</u>	November. Abundant in flower.	
Oncideres trinodatus Csy. Tarrazu	Coffea arabica	September	
Ozineus arietinus Bates Waldeck	Theobroma cacao	April, July	
Pterichthya longicauda Bates	Chayota edulis	November, July, September	
Pyrodes rhomboderus (Bates) San Isidro del General	Blighia sapida	September June	
Trachyderes succinctus L. Paso Ancho	Bidens pilosa	March, November	
San Isidro del General	Lycopersicum esculentum		
CHRYSOMELIDAE			
Allochroma coccineum Clark? Waldeck	Theobroma cacao	July	
Allochroma sexmaculatum Clark Paso Ancho	Caladium bicolor	May. Injurious	
	Colocasia esculenta		<u>f</u> <u>f</u>
			Xanthosoma helleborii- folium
	Xanthosoma sagitti- folium	<u>f</u> <u>f</u>	

Insect and locality	C o l l e c t e d o n	Date and notes
Altica jamaicensis Oliv. San Isidro del General San Pedro	Byrsonima crassifolia Citrus sinensis Jussiaea decurrens f Jussiaea suffruticosa f	Phaseolus vulgaris Polygonum punctatum f
Anomoea sanguinipennis Lacord. San Pedro	Lippia berlandieri Rosa sp.	Zea mays f May. Eating pollen on Zea mays.
Asphaera abdominalis (Chevr.) Paso Ancho	Euddleia davidi f Vernonia brachiata f	April, December
Asphaera nobilitata (F.) Paso Ancho	Chrysophyllum cainito Coix mayuen Elaeis guineensis	April, November
Calligrapha elegantula Jacoby Paso Ancho Rancho Redondo	Chayota edulis f Curcubita pepo f Ipomoea purga f Ipomoea tiliacea	May, July
Calligrapha fulvipes Stål San Pedro Waldeck	Commelina sp.	April, July
Carinispa nevermanni Umann Paso Ancho	Bunchosia costaricensis f	January, August
Cerotoma rogersi Jacoby San Isidro del General Ujarras	Hamelia erecta Hibiscus sabdariffa f Musa sapientum Panicum barbinode Pennisetum purpureum	Phaseolus helvolus f Solanum tuberosum Vitis vinifera Vitis tiliaceaefolia
Cerotoma ruficornis (Oliv.) San Pedro	Phaseolus vulgaris Zea Mays	May, December

Insect and locality	C o l l e c t e d o n	Date and notes
Chalcophana mutabilis Harold. San Pedro Guadalupe	Dahlia sp. (local name Catalina) Solanum torvum	July
Chalepus clypeatus Baly Waldeck	Panicum barbinode	January, June. Adults emerged January 23.
Championaspis interrupta (Champ.) San Pedro	Ipomoea purga Ipomoea tiliacea f f	July, September
Chelymorphe gressoria Boh. var. Cartago Tarrazu Waldeck	Calea urticifolia axillaris Coffea arabica Panicum barbinode	August, October, December
Chirida guttata (Oliv.) San Isidro de Coronado	Ipomoea batatas Ipomoea tiliacea	April, July.
Colaspis hypochlora Lef. San Pedro Waldeck	"Lirio vaginal" Theobroma cacao	July
Colaspis prasina Jacoby San Pedro	Clerodendron fragrans	February, June, August to December.
Colaspis submetallica Jacoby?	Monstera pertusa	
Colaspoides batesi Jacoby Paso Ancho San Pedro	Hamelia erecta Trichilia havanensis f	

Insect and locality	C o l l e c t e d o n		Date and notes
Coptocycla amoena Boh. San Pedro	Eugenia jambos Sida rhombifolia	Tabernaemontana begoniae- flora	January, March, May
Coptocycla atalanta Boh. Paso Ancho San Pedro	Citharexylum caudatum Eugenia jambos Trichilia havanensis f		November to January
Cryptocephalus trizonatus Suffr. Alajuelita San Isidro de Coronado Tarrazu	Alnus acuminata Asclepias curassavica Cestrum aurantiacum Chayota edulis Citrus aurantifolia f Ipomoea tiliacea Lagerstroemia indica	Morus rubra Psidium molle Ricinus communis f Spondias purpurea Tournefortia foetidissima Viola odorata	
Ctenochira aberrata Weise Waldeck	Elaeis guineensis	Paspalum fasciculatum	July
Ctenochira cumulata (Boh.) Cachi Paso Ancho San Vicente de Moravia Torito	Anacardium occidentale Citrus limonia Coffea arabica Coix mayuen Elaeis guineensis Erythrina rubrinervia Eupatorium odoratum	Hibiscus rosa-sinensis Inga roussovia f Ipomoea tiliacea Panicum barbinode Phytolacca octandra Spondias purpurea	February, April, June, August, December
Ctenochira rubrocincta (Boh.) Paso Ancho	Inga roussovia		December

Insect* and locality	C o l l e c t e d o n	Date and notes
Ctenochira vivida (Boh.) San Pedro	Annona cherimola Erythrina rubrinervia	Sapium caudatum
Dachrys bipartita Jacoby? San Pedro	Rosa sp.	June
Deloyala testudinaria (Boh.) Paso Ancho Santa Ana Waldeck	Cestrum macrophyllum Chayota edulis Malpighia glabra Physalis lagascae	f Solanum seaforthianum Theobroma cacao April to August, November
Diabrotica balteata Lec. Alajuela Paso Ancho Pavas de Turrialba San Isidro del General	Aleurites moluccana Allium cepa Althaea rosea Amaranthus cruentus Brassica japonica Citrus sinensis Coffea arabica Cucumis sativus Cucurbita pepo Ficus carica Fragaria chiloensis	f Gossypium barbadense Grass Helianthus annuus Impatiens balsamina Ipomoea batatas Portulaca oleracea Rosa spp. Solanum nigrum Triticum aestivum Verbena spp. Vernonia brachiata Throughout the year.
Diabrotica corusca Jacoby Tarrazu	Coffea arabica	August

Insect and locality	C o l l e c t e d o n	Date and notes
Diabrotica fulvicornis Jacoby La Carpintera Paso Ancho San Isidro de Coronado Santa Barbara de Heredia	Annona cherimola Blakea gracilis Canangium odoratum Conostegia lanceolata Cornutia pyramidata Cucurbita pepo Daucus carota Hamelia erecta	Lycopersicum esculentum f Sapium caudatum f Solanum nigrum Solanum tuberosum Tabebuia pentaphylla Terminalia catappa Trichilia havanensis
Diabrotica fulvosignata Baly	Anacardium occidentale Panicum maximum	April
Diabrotica nummularis Harold Alajuela San Isidro de Coronado Santa Ana Tarrazu	Althaea rosea Amaranthus spinosus Borago officinalis f Brassica japonica Brassica rapa Cajanus bicolor Calonyction aculeatum Canna indica Capsicum annuum Casuarina equisetifolia Cirsium costaricensis Citrullus vulgaris Citrus limonia Coix lacryma-jobi Coix mayuen Coriandrum sativum Cornutia pyramidata Cynara scolymus Cyperus alternifolius	Erythrina glauca Fortunella japonica f Fragaria chiloensis Fuchsia sp. Garcinia tinctoria Gossypium barbadense f Grevillea robusta Helianthus annuus f Hibiscus esculentus f Hibiscus sabdariffa f Hibiscus schizopetalus Holcus sorghum Indigofera suffruticosa Ipomoea purga f Iresine herbsti Jacaranda ovalifolia Jacobinia coccinea Linum usitatissimum f Loniceria japonica

Insect and locality	C o l l e c t e d o n	Date and notes	
Diabrotica nummularis-- Cont'd.	<i>Malacra radiata</i> f <i>Mangifera indica</i> f <i>Nicotiana tabacum</i> <i>Passiflora ligularis</i> <i>Passiflora quadrangularis</i> f <i>Pennisetum purpureum</i> f <i>Persea pittieri</i> <i>Petroselinum hortense</i> f <i>Phaseolus helvolus</i> f <i>Phytolacca octandra</i> <i>Pisum sativum</i> f <i>Rubus</i> spp. (Blackberry) f	<i>Salix chiloensis</i> <i>Salvia splendens</i> f <i>Sambucus mexicana</i> f <i>Sapium caudatum</i> <i>Solanum lanceolatum sinu-</i> <i>atum</i> f <i>Spondias purpurea</i> <i>Tephrosia toxicaria</i> f <i>Trema micrantha</i> <i>Triticum aestivum</i> <i>Valerianoides cayannense</i> <i>Vernonia brachiata</i> f <i>Vitis rotundifolia</i> <i>Vitis tiliaefolia</i> <i>Zantedeschia aethiopica</i> f	
Diabrotica porracea Harold Orosi Paso Ancho San Isidro de Coronado Santa Ana Santa Barbara de Heredia	<i>Borago officinalis</i> f <i>Coix mayuen</i> <i>Coreopsis lanceolata</i> <i>Cucurbita pepo</i> <i>Cyclanthera pedata</i> <i>Helianthus annuus</i> f	<i>Hibiscus rosa-sinensis</i> f <i>Holcus sorghum</i> <i>Linum usitatissimum</i> <i>Pyrus communis</i> <i>Zinnia elegans</i> f	Throughout the year.
Diabrotica theimeii Baly Paso Ancho	<i>Cirsium costaricensis</i> f <i>Citrullus vulgaris</i> <i>Cucurbita pepo</i> f	<i>Diphysa robinoides</i> <i>Impatiens balsamina</i> f <i>Spondias mombin</i>	January to March, July to September, December
Diabrotica variabilis Jacoby? Paso Ancho San Pedro	<i>Desmodium</i> sp. <i>Picus carica</i> <i>Ipomoea purga</i> <i>Lantana camara</i> <i>Meibomia</i> sp. f	<i>Passiflora ligularis</i> <i>Phaseolus helvolus</i> <i>Phaseolus vulgaris</i> <i>Spondias purpurea</i> <i>Zea mays</i>	February, July, October, December.

Insect and locality	C o l l e c t e d o n	Date and notes
Diabrotica viridula (F.) Orosi Paso Ancho Santa Ana	Amygdalus persica Brassica japonica Cajanus bicolor Citrus paradisi Coix mayuen Dahlia rosea Holcus sorghum	Ipomoea batatas Ipomoea purga Prunus salicina Psidium cattleianum Solanum tuberosum Tripsacum laxum
Diabrotica vittata (F.) Pas Ancho	Citrullus vulgaris Mangifera indica	Passiflora ligularis
Diphaulaca nitida Jacoby Cachi La Carpintera San Pedro	Cestrum aurantiacum Sapium caudatum	January, February
Disonycha austriaca (Schauf.) var. Waldeck	Achyranthes aspera	July
Disonycha collata (F.) Waldeck	Amaranthus cruentus	April, July
Disonycha figurata Jacoby Alajuelita	Crotalaria striata	January
Disonychaglabrata (F.) San Pedro	Amaranthus cruentus	June, July
Disonycha recticollis Jacoby? San Pedro	Citrus limonia Lycopersicum esculentum Polygonum punctatum	April, May, July to September.

Insect and locality	C o l l e c t e d o n	Date and notes
Dolichotoma bisbiplagiata Böd. Waldeck	Cornutia pyramidata	April, June, July
Doryphora spectanda Stål Santa Ana	"Huesillo"	July
Epitrix fuscata (Duv.) San Isidro de Coronado Santa Ana	Amaranthus cruentus Apium graveolens Celosia cristata Cucurbita pepo Ficus carica Fragaria chiloensis	Throughout the year.
Galeruca encaustica Germ. Alajuela Tarrazu Waldeck	Cestrum macrophyllum Coffea arabica Theobroma cacao	July, August
Galerucella lineatipennis Jacoby San Pedro	Cornutia pyramidata Croton gossypifolium	March, June, November to January.
Griburius panamensis (Jacoby) Guadalupe	Solanum torvum	May
Homopnoeta albofasciata Jacoby San Pedro	Solanum tuberosum	March

Insect and locality	Collected on	Date and notes
Malacorhinus decempunctatus Jacoby Paso Ancho	Annona cherimola Colocasia esculenta Inga leptolaba	f Inga roussoviana Malpighia glabra
Metriona crucipennis (Boh.) San Pedro	Cestrum aurantiacum	f Meibomia sp.
Metriona emarginata (Boh.)	Ipomoea purga Ipomoea tiliacea	f Vernonia brachiata
Metriona zona (F.)	Elaeis guineensis	April
Nodonota irazuensis (Jacoby) Crosi	Aleurites moluccana Althaea rosea	f Cassia alata Cassia reticulata
San Isidro de Coronado	Amaranthus spinosus	Celosia cristata
San Isidro del General	Antigonon leptopus	Cestrum macrophyllum
Santa Ana	Apium ammi	f Citrus nobilis x C. para-
Tarrazu	Bauhinia violacea Beta vulgaris cicla Blighia sapida Brassica japonica Cajanus bicolor Calonyction aculeatum	disi Codiaeum variegatum Coix mayuen Coriandrum sativum Cosmos sulphureus Dahlia sp. (Catalina)

Insect and locality	Collected on	Date and notes
Nodonota irazuensis--Cont'd.		
Dahlia rosea	f	Philadelphus trichapetalus
Desmodium sp.		Phoebe tonduzii
Dovyalis hebecarpa		Poinciana regia f
Eucalyptus trachyphloia		Poinsettia pulcherrima f
Eugenia malaccensis		Polygonum punctatum f
Fortunella japonica		Pouteria cainito f
Gardenia jasminoides		Psidium cattleianum f
Garcinia tinctoria		Psidium friedrichstahlianum f
Gossypium barbadense	f	Radicula armoracia f
Guilielma utilis	f	Rheum rhaponticum f
Helianthus annuus	f	Rhododendron mucronatum
Hibiscus esculentus	f	Ricinus communis
Hibiscus sabdariffa	f	Rubus spp. (Blackberry)
Hicoria pecan	f	Ruta graveolens
Inga roussovia	f	Salvia splendens f
Ipomoea purga	f	Sambucus mexicana f
Iris laevigata	f	Scabiosa atropurpurea f
Jacobinia coccinea	f	Sida rhombifolia f
Jussiaea decurrens	f	Solanum torvum
Lactuca sativa		Spondias purpurea
Lycopersicum esculentum	f	Telanthra ficoides
Maranta arundinacea		Tephrosia toxicaria f
Melia azedarach		Tetragonia expansa f
Mimosa sp.	f	Thymus vulgaris f
Nicotiana tabacum		Tournefortia foetidissima f
Ochroma lagopus	f	Triticum aestivum f
Ocimum basilicum		Vinca rosea
Passiflora edulis	f	Vitis rotundifolia f
Pennisetum purpureum	f	Vitis tiliaefolia f
Phaseolus helvolus	f	Watsonia sp.
		Xanthosoma helleborii-folium f

Insect and locality	C o l l e c t e d o n	Date and notes
Nodonota lateralis (Jacoby) Cartago Paso Ancho San Isidro de Coronado San Isidro del General Santa Ana	Acacia costaricensis f Acacia farnesiana f Amaranthus cruentus Amygdalus persica Anethum graveolens Annona cherimola f Annona squamosa Antigonon leptopus Asclepias curassavica Bidens pilosa Bombacopsis fendleri Borago officinalis f Bryophyllum pinnatum Buddleia davidi Byrsonima crassifolia Cajanus bicolor f Capsicum annuum Casimiroa edulis Cassia alata Cassia reticulata Cassia spectabilis Chayota edulis Citrus aurantium Clerodendron fragrans Coix lacryma-jobi Coix mayuen Coriandrum sativum f Cosmos sulphureus f Cucurbita pepo Fortunella japonica Erythrina rubrinervia Garcinia tinctoria Gardenia jasminoides	Gomphrena globosa f Gossypium barbadense f Hibiscus esculentus Hibiscus rosa-sinensis Hibiscus sabdariffa Holcus sorghum Impatiens balsamina f Inga roussoviae Ipomoea batatas Lactuca sativa Lantana camara Limnium usitatissimum Malanthera aspera Morus rubra Nicotiana tabacum Ocimum basilicum f Phaseolus helvolus Philadelphus trichapetalus Phytolacca octandra Polyanthus tuberosa f Punica granatum f Rosa spp. F Rubus sp. (Blackberry) f Scabiosa atropurpurea f Salvia splendens Sambucus mexicana Solanum tuberosum Solanum wendlandi f Tagetes erecta f Tournefortia foetidissima Triumfetta josefina Vernonia brachiata
Nuzonia isthmica Champ. Waldeck	Theobroma cacao	April, July

Insect and locality	C o l l e c t e d o n	Date and notes
Oedionychis championi Jacoby San Pedro	Citharexylum caudatum f Hamelia erecta	June, August
Oedionychis inscripta Jacoby Paso Ancho	Jasminum sambac	April
Oedionychis reichei Harold Waldeck		April, July. Abundant.
Oedionychis tenuicincta Jacoby Santa Barbara	Coffea arabica Lippia berlandieri	November
Pachybrachys femoratus (Oliv.) Paso Ancho	Ficus carica Rosa spp.	
Plagiodera bis-tripunctata Duvivier? San Pedro	Xylosma flexuosa Xylosma panamense	June
Plagiodera congesta Stål? Paso Ancho San Pedro	Coffea arabica Polygonum punctatum Xylosma sp. f	March to November
Pseudomesomphalia isthmica (Champ.) San Pedro	Chayota edulis Citrus sinensis Holmskjoldia sanguinea f Ipomoea purga f Ipomoea tiliacia	January, June to November
Pseudomesomphalia pictilis (Boh.) San Pedro	Citrus sinensis	July, October

Insect and locality	C o l l e c t e d o n	Date and notes
Rhabdopterus jansoni Jacoby Alajuela	Coffea arabica	May
Sangaria haagi Harold? San Pedro	Annona cherimola	June
Systema s-littera (L.) Chiz Pavas de Turrialba San Pedro Waldeck	Achyranthes aspera Panicum barbinode Panicum maximum Paspalum fasciculatum Solanum tuberosum	February, May, July
Systema ustulata Harold Chiz Pavas de Turrialba Turrialba	Panicum maximum Vernonia brachiata	February. Abundant.
Uroplata aterrima Guer? La Carpintera San Pedro	Vernonia brachiata	February, April, October
Xenochalepus amplipennis (Baly) Paso Ancho San Pedro	Erythrina rubrinervia f	January, November
Xenochalepus omogerus (Crotch) San Jose San Isidro de Coronado San Pedro	Canavalia ensiformis f Coffea arabica Phaseolus lunatus	January, August, December
Xenochalepus waterhousi (Baly) San Pedro	Erythrina rubrinervia f	July

Insect and locality	C o l l e c t e d o n	Date and notes
CLERIDAE		
Ptinus latefasciatus Gornh. Paso Ancho San Pedro	Eriobotrya japonica Eugenia jambos	Persea americana June, December
COCCINELLIDAE		
Cycloneda pallidula (Muls.) Tarrazu	Coffea arabica	August
Cycloneda saliaei (Muls.) San Pedro	Persea americana	September
Epilachna defecta Muls.	Chayota edulis Citrus aurantium Hibiscus rosa-sinensis	Solanum lanceolatum sin- uatum f
Epilachna vincta Crotch Vuelta de Jorco		July
Epilachna virgata Muls.	Eugenia jambos	April, August
Scymnus horni Gornh. Paso Ancho San Pedro		January, May Predacious on Apn gossypii Glov. an A. nerii Boyer.
CUCUJIDAE		
Telephanus grossicornis Nevermann Santa Barbara de Heredia	Saccharum officinarum	August
Telephanus melanchlorus Nevermann San Pedro	Sapium caudatum	September

Ptilodactyla maculata Champ.?
Walddeck

Cryptorhopalum balteatum Lec.?	Chrysanthemum maximum f	Indigofera suffruticosa	January, December.
San Pedro	Dombeya wallichii		Feeds on pollen.

Chrysanthemum maximum	f	Tagetes erecta	f	December, January.
Guilielma utilis				Feeds on pollen.

Aeolus facetus Canad.
Waldeck

August

Persea americana

Seniotus superbus Kirsch.
La Carpintera

Stenotarsus flavago Gorh.
Tarrazu

Homeotelus jansoni Crotch

Hibiscus rosa-sinensis

Theobrama cacao

Insect and locality	Collection	Date and notes
HISTERIDAE		
Hololepta quadridentata (F.) San Pedro	Chayota edulis	July
LAGRIIDAE		
Statira triangulifer Champ. Santa Barbara de Heredia	Zea mays	August
Statira tropicalis Champ. Waldeck	Theobroma cacao	July
LAMPYRIDAE		
Aspidosoma aegrotum Gorb. San Pedro	Sambucus mexicanus	June
Aspidosoma laterale (F.) San Pedro	Cissus sicyoides Croton gossypifolium	August
Hyas bipunctatus Gorb. Santa Ana	Guazuma ulmifolia	July
Incudota bella Gorb. Waldeck	Inga sp.	April
Lucio castelnaui Kirsch. Waldeck	Elaeis guineensis	April
Photinus volcanicus Gorb. Waldeck	Theobroma cacao	April
	Passiflora sp.	
	Theobroma cacao	
	Pennisetum purpureum	

Insect and locality	Collected on	Date and notes
LANGURIIDAE. Teretilenguria metallica Gorn. Waldock	Urera baccifera	July
LYCIDAE Caenia cardinalis Gorn. Paso Ancho	Rosa sp. f	December
Calopteron bifasciatum Gorn. San Isidro del General	Annona muricata Conostegia lanceolata	June, November
Calopteron cyaneum Erichs. Paso Ancho	Ricinus communis	October
Calopteron obliquum (Say) San Pedro	Passiflora quadrangularis f	May
Calopteron papale Kirsch. San Isidro del General	Zea mays	June
Calopteron pennatum Bourgeois San Pedro	Canarium odoratum	November, December
Calopteron reticulatum (F.) Paso Ancho San Isidro del General San Pedro Santa Ana	Bixa orellana Cestrum lanatum Coix lacryma-jobi Coix mayuen Citharexylum caudatum Croton gossypifolium f Cucurbita pepo Elaphrium sinaruba	June to August, October, December. Abundant f
	Coffea arabica	
	Erythrina rubrinervia Jasminum sambac Rosa sp. Solanum umbellatum Veronia brachiata f	
	Zea mays	

Insect and locality	Collected on	Date and notes
<i>Calopteron suturale</i> Gorn. San Pedro	<i>Rosa</i> spp.	January
<i>Plateros evanides</i> Gorn.	<i>Spondias purpurea</i>	July
<i>Plateros ochraceus</i> Gorn. San Pedro Tarrazu	<i>Citrus sinensis</i> <i>Coffea arabica</i> <i>Hamelia erecta</i> <i>Inga tonduzii</i>	January, April to June, August, September
MELACHILIDAE <i>Attalus carinatus</i> Gorn.? Paso Ancho San Pedro	<i>Spondias purpurea</i> <i>Inga roussovia</i>	April, November
MELASIDAE <i>Deltometopus foveolatus</i> Guer. Paso Ancho	<i>Casimiroa edulis</i>	May
MELOIDAE <i>Epicauta grammica</i> (Fisch.) San Pedro	<i>Canna indica</i>	November
MELURIDAE <i>Listrus canescens</i> Marn. Paso Ancho San Pedro	<i>Calliandra grandiflora</i> <i>Caillistephus chinensis</i> <i>Calonyction aculeatum</i> <i>Chenopodium ambrosioides</i> <i>Carysanthemum maximum</i> F <i>Coreopsis lanceolata</i> <i>Cosmos sulphureus</i> <i>Dahlia rosea</i> <i>Doribaya wallichi</i>	January, July, November, December. Adult injures flower by eating pollen.
	<i>Gerbera jamesoni</i> <i>Impatiens balsamina</i> <i>Iris laevigata</i> <i>Lonicera japonica</i> <i>Phaseolus vulgaris</i> <i>Phytolacca octandra</i> <i>Rosa</i> spp. <i>Sambucus mexicana</i> <i>Tagetes patula</i>	

Insect and locality	C o l l e c t e d o n	Date and notes
MYCETOPHAGIDAE LITERGUS balteatus Lec. San Pedro	Pericillium sp. f	May
MITIDULIDAE Conotelus mexicanus Murr.	Daulia sp. (Catalina) Polianthes tuberosa	Trichilia kavanensis February, June, December. In the flower
Conotelus stencoides Murr. Paso Ancho	Calonyction aculeatum Carysanthemum maximum Dahlia rosea Datura candida Dombeya wallichii	Hibiscus rose-sinensis Sobralia decora Tabernaemontana bignoni- aeflora Vernonia brachiata January, February, June, September to December. In the flower.
SCARABAEIDAE Calomacraspis heroldi Cand. San Isidro del General	"Cola de Chive" (Fern)	March
Canthion viridis (Beauv.) San Pedro	Solanum tuberosum	August
Dichromina dimidiata (Turn.) San Pedro	Datura candida	October. In flower.
Euphrocra candezei Janson San Pedro	Vernonia brachiata f	May

Insect and locality	C o l l e c t e d o n	Date and notes
<p>Faula brunneipennis Bates San Pedro Paso Ancho Guadalupe</p>	<p>Acnistus arborescens Citrus limonia Citrus sinensis f Dahlia rosea Gossypium sp. f Hibiscus rosa-sinensis Impatiens balsamina</p>	<p>April Ipomoea sp. Loniceria japonica f Musa paradisiaca Polygonum punctatum Vernonia brachiata f Zea mays f</p>
<p>Gymnetis liturata (Oliv.) Paso Ancho San Isidro del General</p>	<p>Ananas sativus Musa sapientum Psidium guajava</p>	<p>June to October Spondias purpurea Trichilia havanensis</p>
<p>Gymnetis stellata (Latr.) Grecia</p>	<p>Citrus nobilis</p>	<p>November. Adult drinking sap at wound in bark.</p>
<p>Koplia argyritis Bates</p>	<p>Vernonia brachiata f</p>	<p>June</p>
<p>Koplia surata Bates</p>	<p>Persea americana f</p>	<p>June</p>
<p>Macraspis lucida (Oliv.) San Isidro del General</p>	<p>Citrus sinensis f Anacardium occidentale f</p>	<p>May. Abundant on flowers of C. si- nensis and on fruit of A. occidentale.</p>
<p>Macroductylus lineatus Chevr. Paso Ancho San Pedro</p>	<p>Byrsonima crassifolia Citrus limonia f Hymenaea courbaril</p>	<p>June Impatiens balsamina Polygonum punctatum</p>

Insect and locality	C o l l e c t e d o n		Date and notes
Macroductylus suavis Bates Alajuela	Citrus nobilis x C. paradisi f	Hicoria pecan Persea americana f Spondias purpurea Vernonia brachiata	
	Coffea arabica		
	Fortunella japonica		
	Heliotropium peruvianum		
Macroductylus sylphus Bates	Citrus limonia f	Fortunella japonica	July
	Citrus nobilis x C. paradisi f	Vernonia brachiata	July
Onthophagus marginicollis Harold Santa Ana	Verbesina turbacensis		
Pachystethus marginata (F.) Rancho Redondo	Zantedeschia aethiopica		March
Pachystethus nitidula (Blanch.) Rancho Redondo	Calonyction aculeatum f Panicum berbinode		March. Feeding in flower of C. aculeatum.
Pelidnota costaricensis Bates Paso Ancho San Pedro	Asparagus plumosus Nicotiana tabacum		May, June
Pelidnota strigosa Castelnau Santa Ana	Tripsacum laxum		September
Strigoderma rutelina Bates	Asparagus plumosus		
STAPHYLINIDAE			
Xanthophagus solskyi Sharp Paso Ancho San Pedro			August, September. Eating Nodonta irazuensis and Diabrotica mummularis.

Insect and locality	C o l l e c t e d o n	Dates and notes
Xanthophagus solskyi Sharp--Cont'd. San Pedro--Cont'd.	Impatiens balsamina f	Feeding at leaf glands.
TENEBRIONIDAE		
Choaspes purpureus Champ. Waldeck	Theobroma cacao	July
Ditaphrenotus foveicollis Champ. San Pedro	Coffea arabica	May. In bark wound.
Epitragopsis godmani (Champ.) Alajuelita	Vernonia brachiata	January
Gnathocerus cornutus (F.) Palmares del General	Stored tobacco seed f	March
Hegemona costaricensis Champ. San Pedro	Sporolobus indicus	December
Lobometopon guatemalensis (Champ.) Alajuelita San Isidro de Coronado Santa Barbara de Heredia	Annona squamosa Brassica japonica Byrsonima crassifolia Calliandra grandiflora Chrysanthemum maximum	Throughout the year. Eats pollen and rust fungus on wheat and on I. roussoviana.
Schoenicus panamensis Champ. Alajuelita	Crotalaria striata Poinsettia pulcherrima Psidium guajava	November. Feeding at nectary of flower of P. pulcherrima.
Strongylium permodicum Maklin? Alajuela	Inga sp. Urera baccifera	May, July

Insect and locality	Collected on	Date and notes
Zopherus costaricensis Champ. Tarrazu	Coffea arabica	August. Common and well-known insect.
THEOSCIDAE		
Drapetes taeniolatus Horn San Pedro	Cestrum aurantiacum	Impatiens balsamina
Lissonus inopinctus Horn San Isidro del General	Citrus sinensis	June
RHYNCHOPHORA		
Acanthoscelides obtectus (Say) San Jose	Stored beans	August
Anypotectus exilis Boh.	Pyrus communis	July, October
Anypotectus bicaudatus Champ. Waldock	Theobroma cacao	April
Attelabus laeviscollis Gyll. Guadalupe San Pedro	Spondias purpurea	July, November
Centrinaspis trivittatus Champ. Paso Ancho San Pedro	Cestrum aurantiacum Impatiens sultani	May, June
Cleistolophus similis (Chevr.) Paso Ancho Ujarras	Cassia sophora Dahlia rosea Gynierium sagittatum	January, October
Conotrachelus fulvescens Champ.	Cornutia pyramidata	December

Insect and locality	C o l l e c t e d o n		Date and notes
Conotrachelus perseae Barber San Pedro	Pyrus communis		
Conotrachelus rectirostris Champ. Paso Ancho	Inga paterno	f	June, August September. Reared in fruit.
Copturus ruficollis Champ. Waldeck	Theobroma cacao		April
Cosmopolites sordidus (Germ.) Guacimo San Carlos			October
Eurhinus festivus (F.) Paso Ancho	Cissus sicyoides		
Exophthalmus jekelianus (White)	Citrus nobilis	f	April
Geraeus lentiginosus (Boh.) Paso Ancho San Pedro Turrialba Waldeck	Celosia argentea Chayota edulis Citharexylum caudatum Coix mayuen Crotalaria fulva Erythrina rubrinervia Gomphrena globosa		May. In flowers.
Geraeus lineellus (Lec.) Paso Ancho Waldeck Ujarras	Andropogon bicornis Coix lachryna-jobi Inga roussoviaana Myosotis sylvatica		July to September, December
Geraeus senilis Gyll. Santa Ana			

Insect and Locality	C o l l e c t e d o n	Date and notes
Heilipus pittieri Fisch. Guadalupe	Persea americana f	March, September. Eats holes in leaves.
Heilipus trifasciatus F. San Pedro	Citrus sinensis	
Hoplocryptus varipes Champ. San Pedro	Xanthosoma sp. f	August
Lechriops auritus Bon. Paso Ancho San Pedro	Dovyalis hebecarpa	January, June. Ricinus communis
Lepidobaris acnistii Champ. Paso Ancho	Acristus arborescens	August
Lixus apterus Champ. La Carpintera	"Purca"	February
Metamasius sericeus (Oliv.) Alajuela Guadalupe Paso Ancho	Cocos nucifera Musa paradisiaca f	January, May, October. Eats into midribs of plantain.
Metamasius submaculatus Champ. Paso Ancho	Musa paradisiaca	May
Micentrus lineicollis Boh. Paso Ancho Turrialba	Impatiens balsamina Indigofera suffruticosa Iris laevigata Leonurus sibericus Myosotis sylvatica	January, February, May, August. f/
	Nicotiana tabacum Phaseolus vulgaris Rosa spp. Veronica brachiate	

Insect and locality	Collected on	Date and notes
Phaenithon curvipes (Germ.) Santa Elena de Tarrazu	Inga leptolaba	January
Rhinospathe albomarginata Chevr. Santa Ana	Pennisetum purpureum	May. Reared in seed
Rhinochenus stigma (L.) San Isidro del General	Hymenaea courbaril f	May, June
Rhodobaenus cinctus Gyll. San Pedro	Vernonia brachiata f	July. In fruit.
Rynchophorus palmarum (L.) San Isidro del General	Musa sapientum f	January
Scyphophorus interstitialis Gyll. San Jose	In processed coffee	January, July, August
Sitophilus oryzae (L.) Guadalupe San Pedro Santa Barbara de Heredia	Stored dried plantain fruit Zea mays	May, June
Steirarrhinus cupreotinctus Champ. San Pedro	Annona cherimola	Preyed upon by Apionerus subpiceus Stål.
Steirarrhinus sp.	Bidens pilosa Byrsonima crassifolia Cestrum aurantiacum Jussiaea decurrens	Sambucus mexicana Trema micrantha f Tournefortia foetidisima

HEMIPTERA

Insect and locality	Collected on	Date and notes
ANTHOCEPHALAE		
Triphleps tristicolor White San Pedro	Amaranthus spinosus	Triticum aestivum April, December
COREIDAE		
Acanthocephala declivis Guatemalena Dist. Paso Ancho	Citrus aurantifolia Citrus medica Citrus paradisi	Ficus carica Persea americana f f
Acanthocephala luctuosa (Stål) San Pedro	Vernonia trachniata	
Anasa bellator (F.) San Pedro	Polekowskia tacaco	I
Anasa litigiosa Stål Ujarras	Lantana camara	
Anasa madida Dist. San Pedro	Annona muricata Passiflora quadrangularis	
Anisoscelis gradadia Dist.	Erythrina rubrinervia Passiflora ligularis	
Archimernus scutellaris (Stål)	Chayote edulis	Passiflora punctata October
Burtinus notatipennis (Stål) San Isidro del General San Pedro Tarrazu	Eugenia uniflora Ipomoea purga Vernonia trachniata Coffea arabica	January, March, July, August

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Carpia punctata</i> Dallas San Pedro	<i>Cucurbita pepo</i>	February
<i>Cebrenis modesta</i> Dist.	<i>Impatiens balsamina</i>	January
<i>Corecoris fuscus</i> (Thunb.) Guadalupe San Pedro	<i>Brassica japonica</i> <i>Fragaria chiloensis</i> <i>Ipomoea tiliacea</i> f	April, May, June, August, October
<i>Corecoris granulatus</i> (Stål) San Pedro	<i>Passiflora ligularis</i>	September
<i>Corizus bohemani</i> Sign. San Pedro	<i>Polygonum punctatum</i>	May
<i>Corizus lateralis</i> (Say) San Pedro	<i>Hibiscus rosa-sinensis</i>	June
<i>Corizus sidae</i> (F.) Guadalupe Paso Ancho Ujarras San Isidro del General	<i>Erythrina rubrinervia</i> <i>Grevillea robusta</i> <i>Hibiscus rosa-sinensis</i> <i>Inga rouscoviana</i> <i>Meibomia</i> spp.	February, April, May
<i>Harmostes affinis</i> Dallas Paso Ancho San Pedro	<i>Asparagus officinalis</i> f <i>Coix mayuen</i>	October
<i>Hyalymenus tarsatus</i> (F.) Ujarras Waldeck	<i>Citrus limonia</i> <i>Meibomia</i> sp. <i>Paspalum fasciculatum</i>	February, April, July
	<i>Psidium guajava</i>	

Insect and locality	C o l l e c t e d o n	Date and notes
Hypselonotus atratus Dist. Alajuelita Cartago San Isidro de Coronado	<p>Acnistus arboreus f</p> <p>Annona cherimola f</p> <p>Antigonon leptopus</p> <p>Bidens pilosa</p> <p>Bryophyllum pinnatum</p> <p>Byrsonima crassifolia</p> <p>Buddleia davidi</p> <p>Cajanus bicolor f</p> <p>Calea urticifolia axillaris</p> <p>Calliandra grandiflora</p> <p>Capsicum annuum</p> <p>Cassia alata</p> <p>Casuarina equisetifolia</p> <p>Citrus limetta</p> <p>Citrus limonia</p> <p>Citrus sinensis</p> <p>Coriandrum sativum</p> <p>Cosmos sulphureus f</p> <p>Dahlia rosea</p> <p>Ficus carica</p> <p>Gossypium barbadense</p> <p>Hibiscus rosa-sinensis</p>	<p>Hibiscus sabdariffa f</p> <p>Inga laurina</p> <p>Inga roussoviana</p> <p>Ipomoea purga</p> <p>Ixophorus unisetus</p> <p>Jussiaea decurrens</p> <p>Leonurus sibiricus</p> <p>Linum usitatissimum</p> <p>Lycaste deppei</p> <p>Musa paradisica</p> <p>Myosotis sylvatica</p> <p>Pennisetum purpureum</p> <p>Phaseolus helvolus</p> <p>Psidium guajava</p> <p>Ricinus communis</p> <p>Rosa spp.</p> <p>Rosmarinus officinalis</p> <p>Tournefortia foetidisima</p> <p>Verbesina turbacensis</p> <p>Xanthosoma sagittifolium</p> <p>Zinnia elegans</p> <p>Zea mays</p>
Hypselonotus lineatus Stål.† Santa Ana	<p>"Huesillo"</p> <p>"Manteco"</p>	July
Leptoglossus balteatus F.? San Pedro	Chayota edulis f	July
Leptoglossus stigma (Hbst.) Paso Ancho	Inga roussoviana Zea mays	May

Insect and locality	C o l l e c t e d o n	Date and notes
Leptoglossus zonatus (Dallas) Paso Ancho San Isidro del General	Casuarina equisetifolia Cyperus alternifolius Gossypium sp.	Linum usitatissimum Psidium guajava Zea mays
Nematopus lepidus Stål Waldeck	Coix lacryma-jobi Elaeis guineensis	Inga sp. Panicum barbinode
Pachylis hector Stål San Isidro del General	Inga edulis f	April, July May
Phthia lunata (F.)	Chayota edulis f	March
Phthia picta (Drury) San Isidro del General San Pedro	Annona cherimola Inga edulis Lycopersicum esculentum	Solanum nigrum Solanum tuberosum Zea mays
Staluptus marginalis Burm. Paso Ancho	Cajanus bicolor f Chayota edulis f Citrus nobilis x C. paradisi	Hibiscus sabdariffa Solanum tuberosum
Zicca commaculata Dist. Waldeck	Anaranthus spinosus Panicum maximum	March, July, August April, July
Zicca taeniola (Dallas) San Isidro del General Waldeck	Coix lacryma-jobi Coix mayuen Ipomoea purga Lantana trifolia Malacra radiata	Panicum maximum Polygonum punctatum Psidium guajava Solanum tuberosum
CYDNIDAE		
Allocoris elegans McA. & M. San Pedro	Pennisetum purpureum Zea mays	March, May, June, November May, August

Insect and locality	C o l l e c t e d o n	Date and notes
<p>Pangaeus piceatus Stål Paso Ancho San Isidro del General San Jose</p>	<p>Cucurbita pepo Nicotiana tabacum Rheum rlaponticum</p>	<p>February, May</p>
<p>Thyreocoris guttiger Stål San Isidro del General Santa Ana</p>	<p>Amaranthus cruentus Zea mays</p>	<p>March, July</p>
<p>LYGAEIDAE Acroleucus brevicollis (Stål) Paso Ancho</p>	<p>Acnistus arborescens Citrus limonia</p>	<p>September, October, November.</p>
<p>Acroleucus tullus (Stål) San Pedro</p>	<p>Impatiens balsamina</p>	<p>January, June</p>
<p>Epipolops oculus-caneri Deg. Alajuelita</p>	<p>Psidium guajava</p>	<p>January</p>
<p>Geocoris pallens Stål Paso Ancho</p>	<p>Ingaroussoviana</p>	<p>April</p>
<p>Ligyrocoris litigious (Stål) San Isidro del General</p>	<p>Zea mays</p>	<p>February</p>
<p>Ligyrocoris multispinus Stål San Isidro de Coronado San Pedro</p>	<p>Brassica japonica Sida rhombifolia</p>	<p>July, December</p>

Insect and locality	C o l l e c t e d o n	Date and notes
Lygaeus bistrigularis Say La Carpintera Paso Ancho San Isidro del General	Coix mayuen Crotalaria sp. Ipomoea tiliacea Pennisetum purpureum	Terminalia catappa Zea mays February, June, October
Lygaeus formosus Blanch. Alajuela San Pedro	Canna indica Citrus sinensis	March, November
Lygaeus pallido-cinctus Stål San Pedro	Jacaranda ovalifolia	January
Lygaeus reclinatus Say San Pedro	Amaranthus cruentus Rosa spp.	February, July
Lygaeus uhleri Stål	Citrus sinensis	June, October
Nysius californicus Stål	Amygdalus davidiana Annona cherimola Carissa grandiflora Persea pittieri	March, April, June
Oncopeltus cingulifer Stål	Annona cherimola Citrus aurantifolia f	December
Oncopeltus fasciatus (Dallas) Paso Ancho	Calyptanthus costaricensis	July

Insect and locality	C o l l e c t e d o n	Date and notes
Creontiades rubrinervis-- Cont'd.	Nicotiana tabacum Panicum barbinode Phaseolus vulgaris Rumex crispus Solanum tuberosum	December
Cyrtocapsus caligineus (Stål) San Isidro de Coronado	Ipomoea purga	December
Cyrtopeltis notatus (Dist.) Palmares de San Ramon San Isidro del General San Isidro de San Ramon San Pedro de Barba Santa Barbara Santa Rosa Turrialba		
Eurycipitia vestitus Dist. San Pedro San Raphael de Coronado	Cattleya dowiana Cattleya skinneri Epidendrum prismatocarpum Epidendrum violaceum Lycaste deppei	January, March to May F f f
	Solanum torvum Spondias mombin Telanthera ficoides Triticum aestivum Vitis vinifera Zea mays	
		Odontoglossum sp. Piscatoria sp.

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Insect and locality	C o l l e c t e d o n	Date and notes
<p><i>Lygus sallei</i> Stål Paso Ancho San Isidro de Coronado San Jose San Rafael de Coronado R</p>	<p><i>Ageratum conyzoides</i> <i>Allium cepa</i> <i>Amaranthus cruentus</i> <i>Apium annu</i> <i>Asparagus officinalis</i> <i>Bidens pilosa</i> <i>Eyrsonima crassifolia</i> <i>Celosia cristata</i> <i>Coffea arabica</i> <i>Chrysanthemum</i> sp. <i>Coix lacryma-jobi</i> <i>Coix mayune</i> <i>Conostegia lanceolata</i> <i>Curcubita pepo</i> <i>Euphorbia hofmaniana</i></p>	<p>Throughout the year</p>
<p><i>Mala unicolor</i> Dist. Paso Ancho San Pedro</p>	<p><i>Erythrina rubrinervia</i> f</p>	<p>October. A pest of <i>Erythrina</i> spp.</p>
<p><i>Monalonion annulipes</i> Sign. Paso Ancho Waldeck</p>	<p><i>Hibiscus sabdariffa</i></p>	<p>April, August, October</p>
<p><i>Neurocolpus mexicanus</i> Dist.</p>	<p><i>Citharexylum caudatum</i> <i>Gossypium barbadense</i> <i>Impatiens balsamina</i> <i>Indigofera suffruticosa</i> <i>Lantana camara</i></p>	<p>May, July, August to November</p>
<p><i>Paracalocoris annulatus</i> Dist. Paso Ancho</p>	<p><i>Dianthus caryophyllus</i> f <i>Erythrina rubrinervia</i> <i>Fortunella japonica</i> f <i>Hamelia erecta</i></p>	<p>May, June, September to December</p>

Insect and locality	C o l l e c t e d o n	Date and notes
Paracalocoris jurgiosus (Stål)	Salvia splendens	March
Paracalocoris molliculus Dist. Alajuela	Lantana camara	January, July, October
Platytyllus latipennis (Stål) Paso Ancho Santa Ana	Bidens pilosa Phaseolus vulgaris Sesamum orientale	April to October
Polymerus cuneatus (Dist.) Paso Ancho San Jose	Amaranthus cruentus Asclepias curassavica Beta vulgaris cicla Byrsonima crassifolia Cestrum aurantiacum	f
Pycnoderes atratus (Dist.) Paso Ancho Paves de Turrialba	Grass Hibiscus sabdariffa	February, November
Pycnoderes incurvus (Dist.)	Ageratum conyzoides	January, August, October, December
Pycnoderes quadrimaculatus Guer.	Coix mayuen Cucurbita pepo	f
Paso Ancho San Isidro de Coronado San Pedro	Inga roussoviae Diadocentia sp.	May, August
Reuterocopus ornatus (Reut.) San Jose	Amaranthus spinosus	May
Stenodema guatemalana (Dist.) Rancho Redondo	Pennisetum clandestinum	August, September; October, November
Sysinas centralis Dist. Paso Ancho San Pedro	Canna indica Persea americana Sapium aucuparium	f

Insect and locality	C o l l e c t e d o n		Date and notes
NABIDAE			
Nabis capsiformis Germ. San Isidro del General San Pedro	Solanum tuberosum		Zea mays January, February
Nabis constrictus Champ. San Pedro Waldeck	Phaseolus vulgaris		Theobroma cacao April, July, December
Nabis nigriiventris Stål ^o San Pedro	Amaranthus cruentus Crotalaria spectabilis		Diphysa robiniodes June, July
NEIDIDAE			
Jalysus mollitus Dist. San Pedro Santa Ana	Buddleia sp. Eyrsonima crassifolia Citrus aurantifolia Coix mayuen		Eugenia malaccensis Lagenaria leucantha Vernonia brachiata April to August
Jalysus reversus Van D. San Pedro	Amaranthus cruentus		Persea pittieri January, May
PENTATOMIDAE			
Acrosternum marginatum (Beauv) Faso Ancho San Isidro del General San Jose	Beta vulgaris cicla Cajanus bicolor Coix mayuen Hibiscus rosa-sinensis	f	Phytolacca octandra Verbesina turbacensis Vernonia brachiata February to Octo- ber
Chlorocoris aberrans Dist.	Casimiroa edulis		Elaeagnus umbellata October

Insect and locality	C o l l e c t e d o n	Date and notes
Chlorocoris atrispinus Stål Paso Ancho San Pedro Waldeck	Antigonon leptopus Casimiroa edulis f Ixophorus unisetus f Psidium friedrichsthalianum	April, December
Cosmopepla coeruleata Montd. Paso Ancho San Pedro	Apium armi Leonurus sibericus f	September, November
Edessa cornuta Burn.	Canna indica Erythrina rubrinervia Ipomoea purga	January
Edessa junix Stål Paso Ancho Waldeck	Elaeis guineensis Theobroma cacao	April, July
Edessa nigrispina Dallas San Pedro	Cornutia pyramidata f	September
Edessa rufomarginata (Deg.) San Isidro del General Santa Ana	Saccharum officinarum Solanum torvum f	February July
Edessa salvini Dist. Paso Ancho	Mangifera indica	July, August, September
Edessa vinula Stål San Isidro del General		February

Insect and locality	C o l l e c t e d o n	Date and notes
Euschistus bifibulus (Beauv.) Paso Ancho San Isidro del General	Brassica japonica Byrsonima crassifolia Cleome spinosa Polygonum punctatum f	Psidium guajava Solanum torvum Solanum tuberosum f
Euschistus bififormis Stål Paso Ancho San Isidro de Coronado San Pedro	Bidens pilosa Celosia cristata Lactuca sativa Linum usitatissimum	Zea mays
Euschistus crenator (F.) Paso Ancho	Croton gossypifolium Myosotis sylvatica	October
Euschistus spurculus Stål Paso Ancho	Bidens pilosa	June
Euthyrhynchus floridanus (L.) San Pedro		October. Predacious on Antianthe expansa (Germ.) and Colaspis prasina Jacoby
Homaeus proteus Stål San Pedro	Ligustrum japonicum	February
Macropygium reticulare (F.) San Isidro del General	Musa paradisiaca	June
Mecistorhinus melanoleucus (Westw.) Paso Ancho	Malpighia glabra Musa paradisiaca	June, September
Mecistorhinus tripterus (F.) San Isidro del General	Chayota edulis f	February
		Passiflora ligularis

Insect and locality	C o l l e c t e d o n	Date and notes
Mormidea notulata (H.-S.) Paso Ancho	Bryophyllum pinnatum Chaetium bromoides Cucurbita pepo Hibiscus escelentus Hibiscus sabdariffa	Ipomoea purga Meibomia sp. Vernonia brachiata Xanthosoma helleborii- folium
Mormidea ypsilon (L.) San Pedro Waldeck	Coix lacryma-jobi Panicum barbinode Paspalum fasciculatum	July, August
Nezara viridula (L.) Paso Ancho Alajuelita San Isidro de Coronado	Annona cherimola Brassica japonica Cajanus bicolor Cassia alata Cattelya dowiana Cobaea scandens Coix mayuen Commelina sp. Crotalaria striata Dianthus caryophyllus Galinzoga hispida Helianthus annuus Hibiscus rosa-sinensis Hibiscus sabdariffa Hymenaea courbaril	Linum usitatissimum Malacra radiata Passiflora edulis Passiflora quadrangularis Phaseolus helvulus Phaseolus lunatus Phytolacca octandra Polygonum punctatum Radicula armoracia Ricinus communis Rosa spp. Salvia splendens Trichopilia marginata Vernonia brachiata
Pharypia nitidiventris (Stål) San Pedro	Randia mitis	February, June, October
Piezodorus guildinii (Westw.) San Isidro del General	Psidium guajava Spondias mombin	February

Insect and locality	C o l l e c t e d o n	Date and notes
PYRRHOCORIDAE		
Dysdercus flavo-limbatus Stål	Coix lacryma-jobi	Theobroma cacao
Dysdercus mimulus Hussey	Acnistus arborescens	Hamelia erecta
Alajuelita	Althaea rosea	Hibiscus esculentus
Santa Ana	Amaranthus cruentus	Hibiscus rosa-sinensis
	Annona muricata	Impatiens balsamina
	Asclepias curassavica	Ipomoea purga
	Bidens pilosa	Ipomoea tiliacea
	Bryophyllum pinnatum	Leonurus sibiricus
	Buddleia sp.	Malacra radiata
	Cestrum macrophyllum	Persea americana
	Chrysanthemum maximum	Sedum sp.
	Citharexylum caudatum	Sida rhombifolia
	Citrus aurantifolia	Solanum nigrum
	Citrus limetta	Solanum tuberosum
	Citrus limonia	Taraxacum officinale
	Coix mayuen	Theobroma cacao
	Crotalaria striata	Verbesina turbacensis
	Erythrina rubrinervia	Vernonia brachiata
	Guazuma ulmifolia	Zea mays

Insect and locality	C o l l e c t e d o n		Date and notes
Stenomacra marginella---Cont'd.	Citrus nobilis x C. paradi- si	Melanthera aspera Musa sapientum f f	
	Coix lacryma-jobi	Oreopanax sp.	
	Coleus blumei	Panicum barbinode	
	Conostegia macrantha	Persea pittieri	
	Cornutia cymosa	Phoebe tonduzii	
	Cornutia pyramidata	Podocarpus sp.	
	Cucurbita pepo	Poinsettia pulcherrima	
	Dahlia rosea	Psidium guajava	
	Dillenia indica	Randia mitis	
	Eriobotrya japonica	Rumex crispus	
	Gossypium barbadense	Sapium aucuparium	
	Guarea caoba	Solanum tuberosum	
	Indigofera suffruticosa	Spondias cytherea	
	Inga roussovia	Tabebuia guayacan	f f
	Ipomoea purga	Tabebuia pentaphylla	f f
	Lantana camara	Tephrosia toxicaria	
	Malus sylvestris	Trena micrantha	
	Martinezia caryotaefolia	Vitis rotundifolia	
		Xanthosoma helleboriifol- ium	
REDUVIIDAE			
Empicornis armatus Champ.?	Persea americana		June
San Pedro			
Sinea raptoria Stål	Citharexylum caudatum		November
Paso Ancho			
SCUTELLARIDAE			
Pachycoris torridus (Scop.)	Cupressus benthami	Passiflora ligularis	January,
San Isidro de Coronado	Musa paradisiaca	Rosa spp.	June

Insect and locality	C o l l e c t e d o n	Date and notes
TINGIDIDAE		
Corythaica planaris Uhl. San Isidro del General	Solanum torvum	February, March
Corythucha gossypii (F.) San Isidro del General	Annona muricata Artocarpus communis Elighia sapida Canavalia ensiformis	Melanthera aspera Ricinus communis f Xanthosoma sagittifolium f
Corythucha spinosa (Duges) San Pedro	Triumfetta josefina	January, February, May, September
Gargaphia patricia (Stål) Alajuelita La Carpintera		February
Leptobyrza chiriquensis Champ. Paso Ancho	Citrus limonia	September
Leptoparsa tumida Champ. Paso Ancho	Malpighia glabra	April, May, June, October, November, December
Piesma cinerea (Say) Torito	Ipomoea sp.	July
Teleonemia sacchari (F.) Orosi San Pedro	Lantana camara	February, September

HOMOPTERA

Insect and locality	Collected on	Date and notes
<p> ALEYRODIDAE <i>Aleurocanthus woglumi</i> Ashby Orosi Waldeck </p>	<p> <i>Annona reticulata</i> <i>Annona squamosa</i> <i>Citrus limetta</i> f <i>Citrus paradisi</i> f </p>	<p> Preyed on by <i>Pentilia discors</i> Gorb. </p>
<p> <i>Aleuroplatus oculireniiformis</i> Quaint. and Baker Paso Archo </p>	<p> <i>Possiflora punctata</i> f </p>	<p> November </p>
<p> <i>Aleurotarixus howardi</i> (Quaint.) Alajuelita San Isidro del General San Josecito </p>	<p> <i>Blakea gracilis</i> <i>Citrus limetta</i> f <i>Citrus sinensis</i> f <i>Citharexylum caudatum</i> </p>	<p> Throughout the year. Preyed on by <i>Pentilia discors</i> </p>
	<p> <i>Eugenia uniflora</i> f <i>Malpighia glabra</i> <i>Psidium guajava</i> <i>Spondias cytherea</i> f </p>	
	<p> <i>Fortunella japonica</i> <i>Lucuma mammosa</i> <i>Rheedia edulis</i> f <i>Trichilia havanensis</i> f </p>	

Insect and locality	Collected on	Date and notes
<i>Aleyrodicus coccolobae</i> Queint. and Baker San Jose San Pedro	<i>Citrus aurantifolia</i> <i>Fortunella japonica</i> f	June, October
APHIDIIDAE <i>Aphis gossypii</i> Glov. Paso Ancho San Jose	<i>Gossypium barbadense</i> f <i>Hibiscus esculentus</i> f	May, September, November. Preyed on by <i>Neda retro-</i> <i>spiciens</i> Gr.
<i>Aphis illinoisensis</i> Shim.	<i>Vitis tiliaefolia</i>	October to December
<i>Aphis nerii</i> Boyer Orosi Paso Ancho		Preyed upon by <i>Cycloneda san-</i> <i>guinea</i> L.
<i>Aphis pomi</i> Deg. Paso Ancho San Rafael de Coronado	<i>Chrysanthemum maximum</i> f <i>Gerbera jamesoni</i>	January to March, July to December. Tended by <i>Solenopsis geminata</i> F.
<i>Aphis spiraeicola</i> Patch <i>Ceratephis lataniae</i> (Bdv.) Rio Grande	<i>Citrus sinensis</i> f <i>Epidendrum violacium</i>	March. Tended by <i>S. geminata</i>

Insect and locality	Collected on	Date and notes
<i>Eriosoma lanigerum</i> (Hausm.) San Isidro de Coronado San Jose de La Montana San Pedro		1,500 adults (<i>Aphelinus mali</i> Hald.) liberated.
<i>Phopalosiphum pseudobrassicae</i> (Davis) Orosi San Isidro de Coronado Santa Ana		January, July, November
<i>Toxoptera aurantiae</i> Boyer Santa Ana Santa Barbara de Heredia Tarrazu	Citrus aurantium f Citrus limetta f Citrus medica f	Preyed upon by <i>Coccinella emarginata</i> , <i>Cycloneda sanguinea</i> L., <i>Azya luteipes</i> Muls., <i>Pentilia discors</i>
CERCOPIIDAE <i>Clasoptera funesta</i> Stål Orosi	Acnistus arborescens Dahlia sp. (Catalina) Hibiscus sabdariffa Impatiens sultani Iresine aspera Ixora chinensis Ocimum basilicum	February, June, September to December
<i>Clasoptera obtusa</i> (Say) Paso Archo	Calliandra grandiflora	July, September
	Phaseolus vulgaris Psidium friedrichsthalianum f Rosmarinus officinalis f Russelia equisetiformis f Vigna sesquipedalis	

Insect and locality	C o l l e c t e d o n	Date and notes
Epicranion championi Fowl. Paso Ancho	Citrus sinensis Conostegia lanceolata f Jasminum sambac	f Persea americana Polygonum punctatum f Sapium caudatum
Tomaspis bicincta (Say)	Asclepias curassavica Bidens pilosa Clerodendron fragans Cocos nucifera Coix mayuen Holcus sorghum	June, September.
Tomaspis bipunctata Say San Pedro	Polygonum punctatum	May
Tomaspis lineata (Walk.)? Sabanilla	"Espino"	October
Tomaspis postica (Walk.) Orosi Paso Ancho	Grass Hibiscus sabderiffa Musa sapientum	February, March, November
CHEMIDAE		
Freysuila ernstii Schwarz	Cedrela glaziovii pu- f berula	Injurious
Trioza nicaraguensis Crawl. San Pedro	Bryophyllum pinnatum Rumex crispus	January

Insect and locality	C o l l e c t i o n	Date and notes
CICADELLIDAE		
Agallia ingens Oam Paso Ancho	Impatiens balsamina Tetragonia expansa	Verbera sp. April, July, October
Agallia lingula Van D. Waldeck Turrialba	Acnistus arborescens Amaranthus cruentus Arachis hypogaea Cajanus bicolor Coix mayuen Cucumis sativus	Gerbera jamesoni Ipomoea batatas Linum usitatissimum Theobroma cacao Vernonia brachiata Viola sp. Throughout the year.
Agallia modesta O. and B. Chiz Alajuela Crosi Payas de Turrialba San Isidro de Coronado Santiago Turrialba	Apeiba tibourbon Asclepias curassavica Cajanus bicolor Cucurbita pepo Hamelia erecta Hibiscus sabdariffa Holcus sorghum Impatiens balsamina Impatiens sultani Inga roussoyana Lantana camara	Kialachre radiata Meibomia sp. Melunthera aspera Mentha sativa Panicum barbinode Panicum maximum Pelargonium zonale Radicula erioracia Tournefortia foetidissima Verbera sp. Vernonia brachiata
Agalliopsis novella tropicalis Van D. Paso Ancho San Isidro de Coronado	Artemisia absinthium Beta vulgaris crassa Cajanus bicolor Calyptranthes costaricensis Chrysanthemum maximum Crotalaria fulva Codiceum variegatum Cucurbita pepo Dahlia rosea Dombeya wallichii Ficus carica Fortunella japonica	Gerbera jamesoni Grass Hibiscus sabdariffa Impatiens sultani Indigofera suffruticosa Jacaranda ovalifolia Jatropha curcas Phaseolus helvolus f Saccharum officinarum Terminalia catappa f Tradescantia sp.
		Throughout the year

Insect and locality	C o l l e c t e d o n	Date and notes
Agallia producta O. and B. Turrialba	Vernonia brachiata	February
Agallia repleta Van D. Paso Ancho	Coix lacryma-jobi Ficus cerica	July, September
Amblydisca gigas Fowl. Waldeck	Hura crepitans f	July
Aulacizes panamensis Fowl. Guadalupe Orosi	Annona cherinola Annona muricata Canarium odoratum Coffea arabica	March
Aulacizes thunbergii Stål San Pedro Tarrazu	Coffea arabica Coix mayuen f	August, September, December
Carneocephala sagittifera Uhl. San Rafael de Coronado	Canna indica Coffea arabica Digitalis sp. Linum usitatissimum	Throughout the year
Chinaia bella Bruner and Met. Waldeck	Theobroma cacao	January, July
Chlorotettix curvidens Osb. Waldeck	Zea mays	April

Insect and locality	Collected on	Date and notes
<i>Cicadella anita</i> (Fowl.)	<i>Heliconia imbricata</i>	Abundant
<i>Cicadella areolata</i> (Sign.)	<i>Acalypha wilkesiana</i> f	<i>Hibiscus sabdariffa</i>
Crosi	<i>Ageratum conyzoides</i>	<i>Impatiens balsamina</i>
Santo Ana	<i>Aitnea rosea</i>	<i>Inga roussoviana</i>
Tarrazu	<i>Beta vulgaris cicla</i> f	<i>Ixophorus unisetus</i>
Ujarras	<i>Eidens pilosa</i>	<i>Lactuca sativa</i>
	<i>Byrsonima crassifolia</i>	<i>Linum usitatissimum</i>
	<i>Cajanus bicolor</i>	<i>Lippia berlandieri</i>
	<i>Canna indica</i>	<i>Meibomia</i> sp.
	<i>Carissa grandiflora</i>	<i>Mimosa</i> sp.
	<i>Citrus limonia</i>	<i>Musa sapientum</i>
	<i>Coffea arabica</i>	<i>Persea pittieri</i> f
	<i>Croton gossypifolium</i>	<i>Phaseolus helvolicus</i>
	<i>Cyperus alternifolius</i>	<i>Phoebe tonduzii</i>
	<i>Daucus carota</i> f	<i>Psidium molle</i>
	<i>Eriobotrya japonica</i>	<i>Sesamum orientale</i>
	<i>Galinzoga nispida</i>	<i>Solanum tuberosum</i>
	<i>Gossypium barbadense</i>	<i>Tetragonia expansa</i>
	<i>Helianthus annuus</i>	<i>Verbesina turbacensis</i>
	<i>Holcus vulgare</i> f	<i>Xanthosoma helioboriifolium</i>
	<i>Hibiscus rosa-sinensis</i>	<i>Zaata carracillo</i>
<i>Cicadella coeruleovittata</i> Sign.	<i>Acanthus arborescens</i>	<i>Jussiaea decurrens</i>
Juan Vinas	<i>Beta vulgaris cicla</i> f	<i>Leonurus sibericus</i>
La Carpintera	<i>Ceiba pentandra</i>	<i>Meibomia</i> spp.
Paras de Turrialba	<i>Cayota edulis</i>	<i>Melanthra aspera</i>
Tarrazu	<i>Cirsium costaricensis</i>	<i>Mentha sativa</i>
	<i>Citrus limonia</i>	<i>Petroselinum hortense</i> f
	<i>Clerodendron fragrans</i>	<i>Polygonum punctatum</i>
	<i>Coffea arabica</i>	<i>Purca</i>
	<i>Coix mayuen</i>	<i>Tagetes patula</i>
	<i>Cucurbita pepo</i>	<i>Triticum aestivum</i>
	<i>Impatiens balsamina</i>	<i>Verbena</i> spp.
	<i>Ipomoea purga</i>	<i>Zea mays</i> f
	<i>Ipomoea tiliacea</i>	

Insect and locality	Collected on	Date and notes
Cicadella costaricensis (Dist.) San Isidro de Coronado	Rubus spp. (Blackberry)	August
Cicadella induta (Fowl.) Carpintera San Isidro de Coronado San Pedro	Conostegia lanceolata Conostegia macrantha	January, February
Cicadella lativittata (Fowl.) Orosi San Isidro del General Turrialba	Anacardium occidentale Codiaeum variegatum Vernonia brachiata	February, March, November
Cicadella lutea (Sign.)	Acalypha wilkesiana	
Cicadella mineaticeps (Fowl.) Guayabo San Isidro de Coronado San Isidro del General Santa Ana	Achillea sp. Anacardium occidentale f Apeiba tibourbon Apium anni Asclepias curassavica Beta vulgaris cicla Bidens pilosa Eyrsonima crassifolia Cajanus bicolor	
	Hibiscus rosa-sinensis f	
	Callistephus chinensis Citrus medica Citrus sinensis Codiaeum variegatum Coix mayuen Congoe velutina Coriandrum sativum Crotalaria fulva f Crotalaria striata	

Insect and locality	C o l l e c t e d o n	Date and notes
Cicadella occatoria (Say)--- Cont'd.	Duranta plumieri Erythrina rubrinervia Eugenia jambos Eugenia malaccensis Eugenia uniflora Galinzoza hispida Grevillea banksi Hedychium coronarium Helianthus annuus Hibiscus mutabilis Hibiscus subdariffa Hymenaea courbaril Inga sp. Ipomoea purga Ixora chinensis Jacobinia coccinea Lactuca sativa Lantana trifolia Mangifera indica Meibomia spp. Melanthera aspera. Mentha sativa Morus rubra	Mirabilis jalapa Petroselinum hortense f Phaseolus helvolus Psidium friedrichsthalianum Pyrus communis Raphanus sativus Rumex crispus Sambucus mexicana f Sedum sp. Sesamum orientale Solanum lanceolatum sinuatum Spondias purpurea Tephrosia toxicaria Theobroma cacao Thunbergia grandiflora Tournefortia foetidissima Triumfetta josefina f Verbena spp. Vernonia brachiata f Vitis vinifera Xylosma sp. Yucca elephantipes Zantedeschia aethiopica
Cicadella pardalina (Fowl.) San Jose	Althaea rosea Calliandra grandiflora Citrus medica Cydonia oblonga Diospyros virginiana Dovyalis hebecarpa Eucalyptus alba	Eucalyptus trachyphloia f Fortunella japonica f Grevillea robusta f Guarea caoba f Plumeria rubra Terminalia catappa f
Cicadella pulchella (Guer.) Alajuelita Cachi Cant...	Ageratum conyzoides Beta vulgaris crassa Bidens pilosa	Daucus carota Fragaria chiloensis Galinzoza hispida

Insect and locality	C o l l e c t e d o n	Date and notes
Cicadella pulchella (Guer.)-- Cont'd.	Jussiaea decurrens Mimosa asperata Petroselinum hortense f Phaseolus helvolus f	Polygonum punctatum Solanum tuberosum Valerianoides cayennense Verbena spp. f
Cicadella quadriplagiata(Walk.) Santa Barbara de Heredia Tarrazu	Coffea arabica	September
Cicadella reservata (Fowl.) Alajuelita	Antigonon leptopus Blakea gracilis Cajanus bicolor f Cassia alata Citrus limonia Dovyalis hebecarpa f Eriobotrya japonica f Ficus carica f Gardenia jasminoides f Gossypium barbadense f Hedychium coronarium Hibiscus esculentus	Hibiscus sabdariffa f Hyptis suaveolens Ixora chinensis Sylvestris malus Phaseolus helvolus Psidium friedrichsthalianum Psidium guajava Rosa spp. Salvia hispanica Trichilia havanensis Zinnia elegans
Cicadella similis (Walk.) Alajuelita Guadalape Guayabo Pavas de Turrialba San Isidoro de Coronado San Isidro del General Santa Barbara de Heredia Waldeck	Ageratum conyzoides Apeiba tibourbon Arachis hypogaea f Boehmeria nivea Borago officinalis Bryophyllum pinnatum Celosia cristata Coix mayuen Crotalaria striata Elaeis guineensis Guilielma utilis Heliotropium peruvianum	Hibiscus sabdariffa Impatiens balsamina Ixophorus unisetus Jussiaea decurrens Linum usitatissimum Lycopersicum esculentum Meibomia sp. Melanthera aspera Mentha sativa Nicotiana tabacum Pelargonium zonale Pennisetum purpureum f
		Throughout the year

Insect and locality	C o l l e c t e d o n	Date and notes
Cicadella similis--Cont'd.		
Persea americana Petroselinum hortense Philadelphus trichapetalus Plantago major Polygonum punctatum Solanum nigrum	Sporolobus indicus Tragopogon porrifolius f Tripascum latifolium Triticum aestivum f Zea mays f	Throughout the year
Cicadella sociata (Fowl.) Turrialba	Vernonia brachiata	February Abundant
Cicadella testudinaria (Fowl.) San Isidro del General Santa Barbara de Heredia Turrazu	Acnistus arborescens Alnus acuminata f Anacardium occidentale f Byrsonima crassifolia Cajanus bicolor Canna indica Cassia spectabilis Chalcas exotica Cosmos sulphureus Croton gossypifolium Crotalaria striata Dahlia rosea Eugenia malaccensis Gardenia jasminoides f Heliotropium peruvianum Hibiscus abelmoschus	Throughout the year
Cicadula maidis DeLong and Wolcott San Isidro del General	Coix mayuen f Ficus carica Phaseolus vulgaris	March

Insect and locality	C o l l e c t e d o n	Date and notes
Cyrtodisca major (Sign.) Tarrazu	Coffea arabica	August
Deltoccephalus flavicosta Stål	Coix mayuen Fragaria chiloensis	August
Diedrocephala limbaticollis (Stål) Guadalupe Paso Ancho San Pedro	Acnistus arborescens Bidens pilosa Canangium odoratum Cestrum lanatum Chayota edulis Citrus limonia Codiaeum variegatum Conostegia lanceolata Cornutia pyramidata Croton gossypifolium Cucurbita pepo Erythrina rubrinervia Gossypium barbadense	Throughout the year
Diedrocephala sanguinolenta (Coqueb.)	Coix lacryma-jobi	Inga sp.
Diedrocephala satella (Fowl.)	Ipomoea purga	Tabernaemontana bignoniace- flora
Diestostemma ruforeticulatum Schmidt Guadalupe Paso Ancho Santa Barbara	Citrus limonia Coffea arabica	Hibiscus rosa-sinensis Inga roussoviana f Sterculia diversifolia
		Causes tip-wilt of coffee

Insect and locality	C o l l e c t e d o n	Date and notes
Diestostemma schmidti Mel. Alajuela Paso Ancho San Pedro	Anacardium occidentale f Eriobotrya japonica Pelargonium zonale Terminalia catappa	March, July, October to December
Draeculacephala lenticula Ball La Gloria	Bidens pilosa Coix mayuen Panicum maximum Pennisetum purpureum f	June to October
Draeculacephala soluta Gibbs. Guadalupe Paso Ancho Santa Ana	Coix mayuen Holcus sorghum Impatiens balsamina Sporolobus indicus	July to December
Empoasca perelegans Oman	Annona squamosa Sapium aucuparium	June, July
Erythroneura elegantula Ost.? San Pedro	Vernonia brachiata f	January, February, April, July

Insect and locality	C o l l e c t e d o n	Date and notes
<p>tianus picatus (Gibs.) Pavas de Turrialba San Isidro de Coronado</p>	<p>Artemisia absinthium Coix mayuen f Cyclanthera pedata Fragaria chiloensis</p>	<p>Hibiscus sabdariffa Solanium tuberosum Tetragonia expansa Viola sp.</p>
<p>phocephala aurolineata(Fowl.) San Pedro</p>	<p>Bidens pilosa</p>	<p>August</p>
<p>phocephala coccinea (Forst.) Alajuelita San Isidro de Coronado Santa Ana</p>	<p>Acalypha wilkesiana Amaranthus cruentus Amygdalus davidiana Anacardium occidentale f Artemisia absinthium Averrhoa carambola Bauhinia monandra Bauhinia violacea Bixa orellana Eyrsonime crassifolia Cajanus bicolor Callistemon lanceolatus Cenavalia ensiformis Carissa grandiflora Cedrela glaziovii puberula Citharexylum caudatum Citrus aurantifolia</p>	<p>Citrus medica Codiaeum gossypifolium Crotalaria striata Dillenia indica f Dombeya wallichii Dovyalis hebecarpa Eriobotrya japonica f Erythrina rubrinervia Eucalyptus trachypholia Eugenia malaccensis Euphorbia hoffmanniana Gossypium barbadense Hibiscus esculentus Hibiscus sabdariffa Holmskjoldia sanguinea f Ipomoea tiliacea Jasminum sambac</p>

Insect and locality	C o l l e c t e d o n	Date and notes
Graphocephala coccinea--Cont'd.	<p>Jasminum simplicifolium f Jatropha curcas f Lagerstroemia indica Lucuma mammosum Malpighia glabra Morus rubra Oreopanax sp. Passiflora edulis Poinsettia pulcherrima Psidium guajava f</p>	<p>Throughout the year f f f</p>
Graphocephala obtusior (Fowl.) San Rafael de Coronado	Malus silvestris	February
Graphocephala pileata (Fowl.) San Isidro del General	"Purra"	February
Graphocephala propior (Fowl.) San Isidro del General	Cajanus bicolor Hamelia erecta	February, March
Graphocephala rufimargo (Walk.) San Isidro del General San Pedro San Rafael de Coronado Turrialba Waldeck	<p>Coreopsis lanceolata Hamelia erecta Malus sylvestris Pyrus communis Rumex crispus Spondias purpurea</p>	July

Insect and locality	C o l l e c t e d o n	Date and notes
Graphocephala sexlineata (Sign.)	Acalypha wilkesiana	Hibiscus sabdariffa f
Paso Ancho	Acnistus arborescens	Jasminum sambac
San Isidro de Coronado	Aleurites moluccana	Jasminum simplicifolium f
San Isidro del General	Althaea rosea	Lagenaria leucantha f
	Anaranthus cruentus	Leonurus sibericus f
	Anacardium occidentale	Mangifera indica
	Apeiba tibourbon	Mimusops balata
	Beta vulgaris	Oreopenax sp. f
	Cassia sophora	Persea americana
	Ceiba pentandra	Phaseolus lunatus
	Clerodendron fragrans	Phenax mexicanus f
	Crotalaria spectabilis	Rumex crispus f
	Dahlia sp. (Catalina)	Solanum lanceolatum
	Dombeya wallichi	sinuatum f
	Eriobotrya japonica	Solanum torvum
	Erythrina rubrinervia	Tabebuia guayacan
	Gomphrena globosa	Tabernaemontana bignoniace-
	Gossypium barbadense	flora
	Helianthus annuus	Tephrosia toxicaria
	Heliotropium peruvianum	Tabebuia pentaphylla f
		Verbesina turbacensis f

Insect and locality	C o l l e c t e d o n	Date and notes
Graphocephala versuta (Say) Alajuela Tarrazu	Anacardium rhinocarpus Bauhinia monandra Bauhinia purpurea Calyptranthes costaricensis f- Cassia alata Citharexylum caudatum Citrus aurantifolia Eriobotrya japonica f- Erythrina rubrinervia Gardenia jasminoides Hamelia erecta Impatiens balsamina	Oreopanax sp. Pelargonium zonale Persea americana Rosmarinus officinalis Sambucus mexicana f- Saccharum officinarum Spondias purpurea Terminalia catappa Trichilia havanensis Vernonia brachiata Xanthosoma sagittifolium Yucca elephantipes
Gypona praeterita Fowl. Alajuelita	Psidium guajava Solanum lanceolatum sinuatum	January
Gypona puncticollis Spangb.	Ocimum basilicum	January
Gypona signoreti Stål	Hibiscus rosa-sinensis Lantana camara	September, December
Gypona vinula Stål Tarrazu	Ageratum conyzoides Coffea arabica	June, October

Insect and locality	Collected on	Date and notes
<i>Gypona vulnerata</i> Walk. Alajuela Guadalupe San Jose	<i>Acalypha wilkesiana</i> <i>Anacardium rhinocarpus</i> f <i>Annona squamosa</i> f <i>Apeiba tibourbon</i> <i>Cajanus bicolor</i> f <i>Cydonia oblonga</i> <i>Eugenia malaccensis</i> f <i>Gossypium</i> sp. <i>Helianthus annuus</i> <i>Hymenaea courbaril</i> f	<i>Inga roussovia</i> <i>Persea pittieri</i> <i>Phaseolus vulgaris</i> <i>Psidium molle</i> <i>Rubus</i> sp. (Blackberry) <i>Solanum lanceolatum sinuatum</i> <i>Solanum tuberosum</i> <i>Vernonia brachiata</i>
<i>Homalodisca triquetra</i> (F.) Santa Ana	<i>Calliandra grandiflora</i> <i>Citrus aurantiifolia</i> f	<i>Citrus aurantium</i> f <i>Limosa asperata</i> f
<i>Kolla fasciata</i> (Walk.) Alajuelita Paso Ancho	<i>Byrsonima crassifolia</i> <i>Calonyction aculeatum</i> <i>Canna indica</i> <i>Clerodendron fragrans</i> <i>Crotalaria striata</i>	<i>Hibiscus sabdariffa</i> <i>Linum usitatissimum</i> <i>Ocimum basilicum</i> <i>Phytolacca octandra</i> <i>Polygonum punctatum</i>
<i>Kolla geometrica</i> (Sign.) Orosi Tarrazu	<i>Aceiba tibourbon</i> <i>Bocconia frutescens</i>	<i>Coffea arabica</i> <i>Eugenia malaccensis</i> f
<i>Neonirvana hyalina</i> Ouan Paso Ancho San Pedro	<i>Annona cherimola</i> <i>Citharexylum caudatum</i> <i>Cornutia pyramidata</i> <i>Hamelia erecta</i> <i>Paspalum fasciculatum</i>	<i>Hibiscus rosa-sinensis</i> f <i>Passiflora ligularis</i> <i>Tournefortia foetidissima</i> <i>Trichilia havanensis</i>
<i>Oncometopia anceps</i> Fowl. Waldeck		July
<i>Oncometopia obtusa</i> (F.) ? Guadalupe Paso Ancho San Isidro de Coronado San Jose San Pedro Tarrazu	<i>Acalypha wilkesiana</i> <i>Althaea rosea</i> f <i>Annona cherimola</i> <i>Bauhinia monandra</i> <i>Byrsonima crassifolia</i> <i>Cajanus bicolor</i> f <i>Callistemon lanceolatus</i>	<i>Calyptranthes costaricensis</i> <i>Canarium odoratum</i> <i>Carissa grandiflora</i> <i>Citrus aurantiifolia</i> f <i>Citrus limonia</i> f <i>Citrus paradisi</i> f <i>Citrus sinensis</i> f
		Throughout the year

Insect and locality	C o l l e c t e d o n	Date and notes
Oncometopia obtusa--Cont'd.	<i>Codiaeum variegatum</i> <i>Coffea arabica</i> <i>Coleus blumei</i> <i>Colocasia esculenta</i> <i>Crotalaria juncea</i> <i>Croton gossypifolium</i> <i>Diphyssa robinoides</i> <i>Dovyalis hebecarpa</i> <i>Elaeagnus umbellata</i> <i>Erythrina rubrinervia</i> <i>Eugenia jambos</i> <i>Fortunella japonica</i> <i>Gossypium barbadense</i> <i>Grevillea robusta</i> <i>Guarea caoba</i> <i>Hamelia erecta</i> <i>Hibiscus esculentus</i> <i>Hibiscus rosa-sinensis</i> <i>Hicoria pecan</i> <i>Impatiens balsamina</i> <i>Lantana camara</i> <i>Lonicera japonica</i> <i>Malus sylvestris</i>	<i>Mangifera indica</i> f <i>Morus rubra</i> <i>Panicum barbinode</i> <i>Parkinsonia aculeata</i> f <i>Persea americana</i> <i>Prunus salicina</i> <i>Pyrus communis</i> f <i>Rosa</i> spp. <i>Rubus</i> spp. <i>Rumex crispus</i> f <i>Sambucus mexicana</i> <i>Solanum lanceolatum</i> <i>sinuatum</i> f <i>Spondias mombin</i> <i>Spondias purpurea</i> <i>Sterculia diversifolia</i> <i>Tabebuia pentaphylla</i> <i>Terminalia catappa</i> <i>Thevetia nerifolia</i> <i>Tournefortia foetidissima</i> <i>Trichilia havanensis</i> f <i>Veronia brachiata</i> <i>Xylosma</i> sp. <i>Zinnia elegans</i> f f
Oncometopia undata (F.)	<i>Acalypha wilkesiana</i> <i>Calea urticifolia axillaris</i> <i>Citrus medica</i> <i>Codiaeum variegatum</i> f <i>Croton gossypifolium</i> <i>Hibiscus sabdariffa</i>	November <i>Inga roussoviriana</i> <i>Lippia berlandieri</i> <i>Mimosa asperata</i> <i>Psidium friedrichs-thalianum</i> f <i>Rosa</i> spp. <i>Terminalia catappa</i> <i>Trichilia havanensis</i>

Insect and locality	C o l l e c t e d o n	Date and notes
Osbornellus mexicanus Obs. San Isidro de Coronado	<p>Acnistus arborescens Bixa orellana Cestrum macrophyllum Cestrum lanatum Citrus nobilis x C. para- disi Conostegia lanceolata Dahlia sp. Datura stramonium Eamelia erecta</p>	<p>Inga roussoviriana Iresine herbsti Mormodes sp. Psidium guajava Prunus cerasifera pissardi Rheum rnaponticum Solanum tuberosum Ternanthera ficoides Trichilia havanensis Zea mays</p>
Parallaxis calthrata McA. Paso Ancho	Mirabilis jalapa	October
Phera obtusifrons Fowl. Paso Ancho	<p>Coix mayuen Panicum barbinode</p>	Pennisetum purpureum f
Platymetopius frontalis Van D. Alajuelita Pavas de Turrialba San Isidro de Coronado	<p>Amaranthus spinosus Bauhinia nonandra Bidens pilosa Elaeoa gracilis Elighia sapida Borago officinalis Buddleia davidi Bryophyllum pinnatum Byrsonima crassifolia Cajanus bicolor Chrysanthemum sp. Citrus aurantium Citrus limonia Clitoria ternatea Codiaeum variegatum</p>	<p>Coffea arabica Coix mayuen Coleus blumei Conostegia lanceolata Cornutia pyramidata Crotalaria fulva Crotalaria striata Dovyalis hebecarpa Erythrina rubrinervia Eugenia malaccensis Grass Guilielma utilis Helianthus annuus Heliotropium peruvianum</p>

Insect and locality	C o l l e c t e d o n	Date and notes
Platymetopius frontalis-- Cont'd.	<p>Hibiscus sabdariffa f</p> <p>Inga roussovia</p> <p>Indigofera suffruticosa</p> <p>Leonurus sibericus</p> <p>Mangifera indica</p> <p>Myrsotis sylvatica</p> <p>Nicotiana tabacum</p> <p>Ocimum basilicum</p> <p>Persea pittieri</p> <p>Inga roussovia</p> <p>Tabebuia pentaphylla</p> <p>Ipomoea sp.</p> <p>Grass</p> <p>Clerodendron fragrans</p> <p>Eriobotrya japonica</p> <p>Grass</p> <p>Panicum barbinode</p> <p>Vernonia brachiata</p> <p>Ananthurus cruentus</p> <p>Bauhinia monandra</p> <p>Brassica oleracea acephala</p> <p>Byrsonima crassifolia</p> <p>Calyptranthes costaricensis</p> <p>Citrus sinensis</p> <p>Colocasia esculenta</p> <p>Eupressus benthami</p> <p>Dahlia sp. (Catalina) f</p>	<p>Phaseolus helvolus</p> <p>Phytolacca octandra</p> <p>Podocarpus sp.</p> <p>Salvia hispanica</p> <p>Salvia splendens</p> <p>Spondias purpurea</p> <p>Vigna sesquipedalis</p> <p>Vinca rosea</p> <p>Vitis vinifera</p>
Protalebra decorata (Osborne) Paso Ancho		February to September
Protalebra signata McA. San Pedro		April, August. Abundant
Spangbergiella mexicana Baker. Santa Ana		July
Stirellus bicolor (Van Dine) Pavas de Turrialba		February
Thamnotettix comatus (Ball) Alajuela		March
Alajuela		July,
Pavas de Turrialba		September
San Isidro de Coronado		
San Pedro de Barba		
Thamnotettix fasciaticollis (Stal)		Throughout the year.
Paso Ancho		
San Isidro de Coronado		
Santa Barbara de Heredia		
	<p>Fortunella japonica</p> <p>Impatiens balsamina</p> <p>Oreopanax sp.</p> <p>Passiflora ligularis</p> <p>Persea pittieri</p> <p>Raphanus sativus</p> <p>Solanum unbellatum</p> <p>Pyrus communis</p> <p>Thunbergia grandiflora</p>	

Insect and locality	C o l l e c t e d o n	Date and notes
Typhlocybella minima Bek. Paso Ancho	Grass	September
Xestocephalus tessellatus Van D. Paso Ancho Waldeck	Linum usitatissimum Theobroma cacao	July
CICADIDAE		
Fidicina pronoe (Walk.) San Isidro del General	Erythrina rubrinervia Gliricidia maculata	February. Abundant
Quesada gigas (Oliv.) San Isidro del General	Cassia spectabilis Gliricidia maculata	February

Insect and locality	C o l l e c t e d o n	Date and notes
COCCIDAE		
Aspidiotus destructor Sign. Limon Waldeck	Cocos nucifera Elaeis guineensis Pandanus utilis	f f f f f
Aulacaspis pentagona (Targ.) Guadalupe	Amygdalus davidiana Hibiscus rosa-sinensis	f f f
Aulacaspis rosae (Bouche) Paso Ancho San José	Epidendrum spp. Rosa spp.	f f f
Ceroplastes floridensis Const. Alajuelita Paso Ancho San Isidro de Coronado	Antigonon leptopus Citrus paradisi Eugenia uniflora Gardenia jasminoides Lagerstroemia speciosa	f f f f f f f f f
Chrysomphalus dictyospermi (Morg.)	Amygdalus persica Cinnamomum camphora	f f f
Coccus acuminatus (Sign.) Desamparados de Alajuela	Gardenia jasminoides Gonolobus edulis	f f f
Coccus hesperidum L. Ochomogo Santa Ana	Eligbia sapida Citrus aurantium Clusea sp. Codiaeum variegatum Dianthus barbatus Eugenia malaccensis Gardenia jasminoides	f f f f f f f f f f f f f
	Iris laevigata Mangifera indica Mimusops balata Nephrolepis spp. Rheedia sp. Viola odorata	f f f f f f f f f f f
	Jasminum simplicifolium Psidium guajava	f f f
	Citrus mitis	f January
	Persea americana	f July, September
	Jacobinia aurea Mangifera indica	f f f March, May, July, September
	Lucuma mammosa Mammea americana Psidium molle Russelia equisetifolius	, f f f f f f

Insect and locality	C o l l e c t e d o n			Date and notes
Protopulvinaria pyriformis Ckll. Paso Ancho San Pedro	Eugenia malaccensis Psidium friedrichsthalianum	f f		July, September, October, December
Pseudaonidia articulatus Morg. Paso Ancho	Citrus limonia Coffea arabica	f f	Jasminum sambac Tabernaemontana coronaria	f f April, May, September, October
Pseudischinaspis bowreyi (Ckll.) San Jose				
Pseudococcus citri (Risso) Paso Ancho Tarrazu	Sambucus mexicanus Lagenaria leucantha	f f	Sobralia sp.	f July
Pseudococcus longispinus (Targ.) Limon	Caladium bicolor			September
Pseudococcus virgatus (Ckll.) Paso Ancho San Jose	Bauhinia violacea Blakea gracilis Byrsonima crassifolia	f f f	Eugenia uniflora Psidium guajava Serjania sp.	f f f January, February, May, June, August, October
Pulvinaria psidii Mask. Paso Ancho	Acalypha wilkesiana Blighia sapida Eugenia jambos Eugenia malaccensis Gardenia jasminoides	f f f f f	Gonolobus edulis Iresine herbsti Ixora chinensis Rheedia sp. Viola odorata	f f f f f Preyed on by Azya luteipes. Tended by Solenopsis geminata.
Rhizococcus coffeae Iaing Guadalupe				May

Insect and locality	C o l l e c t e d o n	Date and notes
Saissetia hemisphaerica (Targ.) Ochomogo Sabanilla San Isidro del General San Jose	Acnistus arborescens f Antigonon leptopus f Asparagus sprengeri f Elighia sapida f Calyptranthes costaricensis f Chalcas exotica f Chrysophyllum cainito f Citrus limetta f Citrus paradisi f Clerodendron fragrans f Coleus blumei f Colocasia esculenta f Dahlia rosea f Impatiens balsamina f Impatiens sultani f	Tended by Solenopsis geminata and Rhipipteryx biolleyi Sauss.
Saissetia nigra (Nietn.) Paso Ancho	Ocimum basilicum f	December
Saissetia oleae (Bern.)	Annona cherimola f Annona muricata f Antigonon leptopus f Citrus limetta f Erythrina rubrinervia f	Throughout the year. Tended by Solenopsis geminata
Trionymus sacchari Ckll. Santa Barbara de Heredia		August
TULGORIDAE		
Anotia invalida Fowl. Waldeck	Theobroma cacao	April, July Abundant

Insect and locality	C o l l e c t e d o n	Date and notes
Biolleyana costalis Fowl. Waldeck	Theobroma cacao	April, July
Bladina magnifrons Walk. Waldeck	Panicum barbinode	April, July. Abundant
Bothriocera tinealis Klug. Favas de Turrialba San Isidro del General Turrialba Waldeck	Codiaeum variegatum Coix lacryma-jobi Cornutia pyramidata Grass Impatiens balsamina	February, July
Colgorma proxima (Fowl.) Waldeck	Citharexylum caudatum Coffea arabica	April, September
Copicerus irroratus Swartz Orosi	Cupressus benthami Ipomoea purga Ipomoea tiliacea Lantana camara	February, July October
Delphacodes nigrifacies Muir, Grass Waldeck	Grass	January
Delphacodes propinqua Fieb. Paso Ancho Favas de Turrialba	Grass	March
Delphacodes teapae (Fowl.) Paso Ancho	Phaseolus vulgaris	September, December

Insect and locality	C o l l e c t e d o n	Date and notes
Dictyophara florens (Stål) Santa Ana	Leonurus sibericus	July
Dictyophara herbida (Walk.) Paso Ancho Santa Ana Waldeck	Achyranthes aspera Cliricidia maculata Inga roussoviana Panicum barbinode	July, September, December
Dictyophara obtusifrons (Walk.) Paso Ancho San Pedro	Casuarina equisetifolia Cleome spinosa Coix mayuen Hibiscus sabdariffa	July, November, December
Enchophora florens Dist. Santa Ana	Bunchosia costaricensis	July
Flatoides humeralis Walk. Paso Ancho	Anygdalus persica Casimiroa edulis Citrus sinensis	March, June
Oecleus addendus Fowl. Pavas de Turrialba Waldeck	Elaeis guineensis Grass	February, July
Peregrinus maidis (Ashm.) Paso Ancho Waldeck	Coix mayuen	April, October, November
Sogata furcifera Horv. Pavas de Turrialba	Grass Triticum aestivum	February, December

Insect and locality	C o l l e c t e d o n	Date and notes
Acutalis fusconervosa Fairm. Santa Elena de Tarrazu	Coffea arabica	January
Aethalion quadratum Fowl. Paso Ancho	Canangium odoratum Sida rhombifolia	November, December
Aethalion reticulatum (L.) Alajuelita Paso Ancho San Isidro de Coronado	Bombacopsis fendleri Codiaeum variegatum Elaeagnus umbellata Elephrium simaruba Erythrina crista-galli Erythrina rubrinervia	Throughout the year f f f
Alchisme grossa (Fairm.) La Carpintera San Isidro de Coronado	Acnistus arborescens Cestrum aurantiacum Cestrum lanatum	January, February, November, Decem- ber
Amastris obtegens (F.)		April
Antianthe expansa (Germ.) Alajuelita Desamparados de Alajuela La Carpintera San Isidro de Coronado San Jose San Rafael de Coronado Santa Posa Tarrazu	Cestrum nocturnum	Tended by Solano- pis geminata and Parachartergus apicalis (F.)

Insect and locality	C o l l e c t e d o n	Date and notes
Bolbonota inaequalis (Fairm.) Alajuelita	<p> <i>Annona cherimola</i> <i>Baccharis nervosa</i> f <i>Bauhinia violacea</i> <i>Cestrum aurantiacum</i> <i>Citrus limetta</i> <i>Coix lacryma-jobi</i> <i>Cola acuminata</i> <i>Cydonia oblonga</i> <i>Eucalyptus trachyphoia</i> <i>Eugenia malaccensis</i> </p>	<p> <i>Inga roussoviana</i> <i>Psidium friedrichsthalianum</i> <i>Spondias purpurea</i> <i>Terminalia catappa</i> <i>Thevetia nerifolia</i> f <i>Tournefortia foetidissima</i> <i>Trema micrantha</i> <i>Xylosma</i> sp. </p>
Bolbonota inconspicua Fowl. Crosi Paso Ancho San Pedro	<p> <i>Acnistus arborescens</i> f <i>Cassia</i> sp. near <i>alata</i> <i>Inga roussoviana</i> <i>Ixora chinensis</i> </p>	<p> <i>Malpighia glabra</i> <i>Mangifera indica</i> <i>Psidium friedrichsthalianum</i> </p> <p>September to December</p>
Bolbonota insignis Fowl. Guadalupe La Carpintera Orosi San Isidro del General Waldeck	<p> <i>Anacardium rhinocarpus</i> <i>Annona squamosa</i> <i>Baccharis nervosa</i> f <i>Blighia sapida</i> f <i>Byrsonina crassifolia</i> f <i>Cajanus bicolor</i> f <i>Cassia alata</i> f <i>Cassia reticulata</i> f <i>Citrus medica</i> f <i>Clerodendron fragrans</i> f <i>Elaphrium sinaruba</i> <i>Erythrina rubrinervia</i> <i>Ficus carica</i> f <i>Gardenia jasminoides</i> <i>Helianthus annuus</i> <i>Hibiscus rosa-sinensis</i> <i>Hibiscus sabdariffa</i> </p>	<p> <i>Hymenaea courbaril</i> <i>Inga</i> sp. <i>Inga roussoviana</i> <i>Lucuma salecefolia</i> f <i>Piper</i> spp. <i>Poinciana regia</i> <i>Psidium guajava</i> f <i>Rosa</i> spp. <i>Rubus</i> spp. (Blackberry) <i>Rumex crispus</i> <i>Solanum umbellatum</i> <i>Spondias cytheria</i> <i>Spondias mombin</i> <i>Tephrosia toxicaria</i> f <i>Theobroma cacao</i> <i>Verbesina turbacensis</i> </p> <p>Throughout the year</p>

Insect and locality	C o l l e c t e d o n	Date and notes
Campylocentrus hamifer (Fairm.)	Acnistus arborescens	Triumfetta josefina
Campylocentrus pusillus (Fairm.) Torito	Ageratum conyzoides Ipomoea purga	Medicago sativa Passiflora ligularis
Ceresa minor Fowl. San Isidro del General Santa Ana	Chrysophyllum cainito Paspalum esculentum Paspalum fasciculatum	Vernonia brachiata Zea mays
Ceresa testacea Fairm. San Isidro de Coronado	Inga roussoviae Philadelphus trichopetalus	Prunus salicina Sterculia diversifolia
Ceresa vitulus (F.)	Ageratum conyzoides Anaranthus cruentus	Colocasia esculenta Pennisetum purpureum
Cyphonia clavata (F.) Torito		
Encmenopa binotata (Say) Paso Ancho San Isidro de Coronado	Annona cherimola Antigonon leptopus Blakea gracilis Byrsonima crassifolia Canarium odoratum f Carissa grandiflora Citrus sinensis Crotalaria maypurensis Croton gossypifolium f Dahlia rosea f Eucalyptus brachyphloea f Eugenia jambos f	Fortunella japonica f Inga laurina Jacobinia aurea Jacobinia coccinea Lucuma salicifolia Mangifera indica Payllanthus sp. Rosa spp. Sambucus mexicana Radicula armoracia Solanum seaforthianum Spondias purpurea f Tephrosia toxicaria f Trema micrantha

Insect and locality	Collected on	Date and notes
Enchenopa lanceolata (Stoll) Guadalupe Peralta San Isidro de Coronado San Isidro del General	Antigon leptopus Byrsonima crassifolia Calyptranthes costaricensis f Canarium odoratum	Citrus sinensis Grevillea robusta Solanum seaforthianum Tephrosia toxicaria Zexmenia costaricensis f
Enchophyllum dubium Fowl. Paso Ancho	Citrus sinensis Inga leptolaba	Inga roussovia Malpighia glabra March, November, December
Entylia sinuata (F.) San Isidro de Coronado San Isidro del General Santa Ana	Artemisia absinthium f Bunchosia costaricensis Byrsonima crassifolia Cajanus bicolor Colix mayuen Cosmos bipinnatus Crotalaria striata Eriobotrya japonica Ficus carica Ficus religiosa f	Helianthus annuus Hibiscus sabdariffa Inga roussovia Melanthera asperata Polygonum punctatum Psidium guajava Ricinus communis Solanum tuberosum Vitis vinifera Zea mays Throughout the year
Erechtia sallaei (Fowl.) Paso Ancho	Eugenia jambos Hamelia erecta Hymenaea courbaril	Throughout the year. Tended by Parachartergus apicalis
Heteronotus nodosus (Germ.) Paso Ancho San Pedro	Hymenaea courbaril Inga leptolaba	January, December

Insect and locality	C o l l e c t e d o n		Date and notes
<i>Horiola picta</i> (Coqueb.)	<i>Cornutia pyramidata</i>		April
<i>Eypsoprora coronata</i> (F.) San Pedro	<i>Eyrsonima crassifolia</i>		July
<i>Ischnocentrus niger</i> Stål Peralta	Mistletoe		July
<i>Lycoderes prasiannus</i> Fowl. San Isidro del General	"Purra"		February
<i>Hembracis humilis</i> Fowl. Orosi	<i>Grevillea robusta</i>		November
<i>Hembracis mexicana</i> Guer. Orosi	<i>Annona squamosa</i>	<i>Gossypium</i> sp.	Tended by Solenopsis geminata
San Isidro de Coronado	<i>Antigonon leptopus</i>	<i>Gurtea caoba</i>	
San Isidro del General	<i>Bauhinia purpurea</i>	<i>Iriga roussoviana</i>	
San Jose	<i>Bixa orellana</i>	<i>Iresine herbsti</i>	
Santa Barbara de Heredia	<i>Cajanus bicolor</i>	<i>Lucuma salicifolia</i>	
	<i>Cassia alata</i>	<i>Meibomia</i> spp.	
	<i>Cassia sophora</i>	<i>Passiflora ligularis</i>	
	<i>Cassia spectabilis</i>	<i>Piper</i> sp.	
	<i>Cinnamomum camphora</i>	<i>Poinciana regia</i>	
	<i>Cornutia pyramidata</i>	<i>Prunus armeniaca</i>	
	<i>Diphysa robinoides</i>	<i>Punica granatum</i>	f f
	<i>Dombeya wallichi</i>	<i>Spondias purpurea</i>	f f
	<i>Elaeagnus umbellata</i>	<i>Tripsecur latifolium</i>	
	<i>Elephantium sinariba</i>	<i>Xylosma</i> sp.	
	<i>Eugenia jambos</i>	<i>Xanthosoma sagittifolium</i>	
<i>Microtalis albivitta</i> Fowl.	<i>Eyrsonima crassifolia</i>		February

Insect and locality	C o l l e c t e d o n	Date and notes
Micrutalis ephippium (Burm.) La Gloria Peralta San Isidro del General	Acnistus arborescens Annona muricata Apeiba tibourbon Capsicum annuum	Chenopodium ambrosioides f Panicum maximum
Micrutalis lugubrina (Stål)	Conostegia macrantha Guarea caoba	Tournefortia foetidissima Vernonia brachiata
Polyglypta costata Burm. Paso Ancho San Pedro	Annona cherimola f Passiflora ligularis Verbesina turbacensis	June, August to December
Polyglypta dispar Fowl. La Carpintera	"Purca"	February
Potnia brevicornis Fowl. La Carpintera Paso Ancho	Philadelphus trichopetalus Tournefortia foetidissima	January, February, April, June. Tended by Para- chartergus apicalis
Pterygia bituberculata Fowl. Paso Ancho Santa Ana	Eriobotrya japonica Eugenia jambos Serjania sp.	July, November, December
Pterygia cerviceps Fowl. Waldeck	Theobroma cacao	April
Spongophorus ballista (Germ.) Peralta Santa Ana	Acnistus arborescens Annona cherimola Antigonon leptopus Bauhinia monandra Bauhinia violacea Capsicum annuum Cosmos sulphureus	Throughout the year
	f f f	Elaphrium simaruba Grevillea robusta Hibiscus rosa-sinensis Hymenaea courbaril Ipomoea tiliacea Tephrosia toxicaria f Vernonia brachiata

Insect and locality	C o l l e c t e d o n	Date and notes
Stictocephala festina (Say) Alajuelita San Isidro de Coronado San Isidro del General	Borego officinalis f Cajanus bicolor f Crotalaria fulva Crotalaria retusa Crotalaria striata Helianthus annuus f Hibiscus sabdariffa f	Throughout the year Heibomia sp. Panicum barbinode Raphanus sativus Saccharum officinarum Vernonia brachiata
Stictopelta acutula (Firm.)? San Isidro del General San Pedro	Annona muricata	Pyrus communis April, July
Tylopelta gibbera (Stål) Paso Ancho San Pedro Ujarras	Heibomia sp. f Phaseolus vulgaris	January, February, June, October, December
Unbonia crassicornis (Am. ? Serv.) Santa Ana	Acacia costaricensis f Acacia farnesiana f Cajanus bicolor f Cassia sopora f	June, September to December
Vanduzea segmentata (Fowl.)	Acacia farnesiana Cajanus bicolor Calyptranthes costaricensis f Cassia alata f Cassia grandis f	January, November, December; Tended by Solenopsis geminata

Insect and locality	Collected on	Date and notes
LEPIDOPTERA		
Acraga coa Schaus Guadalupe	Coffea arabica	f June
Agraulis junco (Cr.) San Isidro del General	Zinnia elegans	f February, June
Agraulis poeyi Butl. San Pedro	Passiflora quadrangularis	February. Preyed on by Podisus congrex Stal
Anastus aecenia H.-S. San Pedro	Ligustrum japonicum	January, March, April
Aprotopos melantho (Bates) Guadalupe Santa Ana	Diospyros virginiana Persea americana Zea mays	June, July
Aprotopos chiriquensis Champ. San Pedro Santa Barbara de Heredia	Annona cherimola Annona reticulata	May, June, August
Atarnes sallaei (Feld.) San Pedro	Annona squamosa	June, July, September, October
Automeris boucardi Druce	Annona cherimola Canna indica Cydonia oblonga	April, June, December
Automeris rubescens Walk. Paso Ancho	Croton gossypifolium	November
Automeris tricolor H.-S.	Loniceria japonica	November, December

Insect and locality	C o l l e c t e d o n	Date and notes
Azocnis griseusalis Walk. Paso Ancho		Throughout the year
Brassolis isthmia Bates Limon Maldeck	Chrysalidocarpus lutescens f Cocos nucifera f Roystonea regia f	April, September Very abundant and destructive along entire Atlantic seaboard
Catopsilia phileia L. Paso Ancho San Pedro	Cassia alata f Cassia reticulata f	October, November, January
Cocytius antaeus nedor Mer. San Isidro del General	Annona cherimola f Annona muricata f	February, May
Copaxa nadari Bonv. Paso Ancho	Phoebe tonduzii f	December
Cordimon fulgens (Walk.) San Pedro		July. Observed flying
Danaus menippe (Hbn.) San Pedro Torito	Asclepias curassavica f	July
Dircenna klugii (Geyer) Alajuelita	Solanum torvum	January, July
Eantis pallida (Feld.) Paso Ancho San Isidro de Coronado	Buddleia davidi f Citrus limetta	Throughout the year

Insect and locality	Collected on	Date and notes
Erinnyis ello L. Santa Ana	Manihot esculenta f	July
Eueides zorceon Reek. San Pedro Santa Ana	Passiflora edulis f Passiflora sp. f	June, July
Eurema eugenia Wall. Alajuelita		January
Eurema limoneus Feld. San Pedro	Cassia sp.	March
Gloveria balloui Schaus Paso Ancho	Psidium friedrichsthalianum f Psidium molle f	April to September f
Halisidota underwoodi Rotensch.	Passiflora ligularis f	November
Holiconius charitonia (L.) San Pedro	Passiflora quadrangularis	October
Honoreocampa costaricensis Schaus	Hicoria pecan	May, October
Hylosia alinda Druce Paso Ancho San Pedro	Coix lacryma-jobi f Pelargonium zonale f Persoa americana f	May, June, October, ber, December f f

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Hypanartia lethae</i> (F.) San Pedro	<i>Trema micrantha</i> f	January
<i>Hyphypena colpodae</i> (Wlsm.) San Josecito	<i>Persea pittieri</i> f	Throughout the year
<i>Jocara claudalis</i> Mosch. San Isidro de Coronado	<i>Holcus sorghum</i>	January
<i>Laphygma frugiperda</i> (S. & A.) San Isidro de Coronado		September
<i>Leuconthera coffeella</i> (Guer. and Proutt.) Paso Ancho San Josecito		
<i>Lichnoptera cavillator</i> Walk. Paso Ancho	<i>Pyrus communis</i> <i>Picinus communis</i>	February, July
<i>Lycorea atergatis</i> (Dobl. and Hewits.) San Jose	<i>Ficus carica</i> f	August
<i>Melittia curcurbitae</i> Harr. San Pedro	<i>Curcubita pepo</i>	May

Insect and locality	C o l l e c t e d o n	Date and notes
Opnarus astur Cram. San Pedro	Hibiscus rosa-sinensis f	January, February
Opsiphanes corrosus Stichel	Musa sapientum f	September
Pachylia ficus (L.) Paso Ancho San Jose	Ficus sp. Ficus carica f f	November, December
Papilio anchisiades idaeus F. Paso Ancho		December
Papilio polyxenes stabilis R. and J.	Daucus carota	May
Papilio thoas autocles Rothsch. Paso Ancho Santa Ana	Eudleia davidi f Citrus aurantifolia f Citrus limonia f	July
Phobetron hipparchia Cram. Guedalupe	Aristolochia rigens f Lucuma mammosa f	June, September
Pholus fasciatus Drury Paso Ancho	Jussiaea decurrens f	June, July
Pieris elodia Edv. San Isidro de Coronado San Pedro	Brassica oleracea botritis f Brassica oleracea capitata f Cleome spinosa f	January, April, October
Plutella maculipennis (Curt.) San Isidro de Coronado	Brassica japonica Brassica oleracea acephala Brassica oleracea	January, June, August

Insect and locality	C o l l e c t e d o n		Date and notes
Prolimacodes triangulifera Schaus San Pedro	Persea americana	f	June
Sibine ophelians Dyar? Guadalupe Paso Ancho	Ricinus communis Solanum wendlandi	f	June, November
Stenomma annonella Sepp. Paso Ancho	Annona cherimola	F	Entire crop of cherimola destroyed.
Stenomma sororia (Zell.)	Persea pittieri	f	Throughout the year
Telegonus alardus (Stoll) San Pedro	Erythrina rubrinervia	f	July to September
Thagana tibialis Walk. Limón-	Terminalia catappa	f	September
Tolyte celeste Dyar San Pedro			April
Utetheisa ornatrix (L.)	Coriandrum sativum Crotalaria juncea	f f	January, February

O R T H O P T E R A

Aidemona azteca (Sauss.) Paso Ancho San Isidro del General San Pedro	Acnistus arborescens Dahlia rosea Ipomoea tiliaacea Linum usitatissimum Lippia berlandieri Malacra radiata Passiflora ligularis	f f f f f	Physalis lagascae Polygonum punctatum Radicula armoracia Scabiosa atropurpurea Viola sp. Zea mays	February, May, July to November
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Insect and locality	Collected on	Date and notes
Chorisononeura panamae Hebard Waldeck	Theobroma cacao	April
Cocconotus ravus Rehn ^{1/} San Isidro de Coronado	<p>Brassica oleracea acephala f</p> <p>Canna indica f</p> <p>Cattleya dowiana f</p> <p>Cobaea scandens f</p> <p>Dahlia rosea f</p> <p>Hedychium coronarium F</p> <p>Iris laevigata f</p> <p>Lonicera japonica f</p> <p>Malacra radiata</p> <p>Maranta arundinacea</p>	<p>Mentha sativa f</p> <p>Passiflora quadrangularis f</p> <p>Persea americana f</p> <p>Rorstonea regia</p> <p>Tabernaemontana bignoni-aeiflora</p> <p>Tournefortia foetidissima f</p> <p>Trichopelia marginata f</p> <p>Viola odorata</p> <p>Xanthosoma helleborii-folium f</p>
Conocephalus cinereus Thunb. Alajuelita Santa Ana Waldeck	<p>Acnistus arborescens</p> <p>Artemisia absinthium f</p> <p>Coix lacryma-jobi</p> <p>Coix mayuen</p> <p>Crotalaria striata f</p> <p>Cucurbita pepo</p> <p>Daucus carota f</p> <p>Hedychium coronarium</p> <p>Hibiscus esculentus</p> <p>Hibiscus sabdariffa</p>	<p>Holcus sorghum</p> <p>Inga roussovia</p> <p>Ipoidea purga</p> <p>Ixonopus unisetus f</p> <p>Lippia berlandieri</p> <p>Malacra radiata</p> <p>Melanthra aspera</p> <p>Panicum barbinode</p> <p>Pelargonium zonale</p> <p>Polygonum punctatum</p>

Throughout the year

^{1/} The oviposition slits in bark of trees noted in the Insect Pest Survey Bulletin, vol. 15, Supplement to no. 4, page 210, under C. ravus Rehn, were probably made by the tettiagoniid Erioloides longipennis Redt. Two females and one male of C. ravus were kept in a tower cage with branches of coffee, avocado, and apple from the last nymphal instar until they died. Copulation took place November 3 and 7, the male died December 9, and the last female died in March. The soil was examined on March 5 and egg clusters were found just below the surface.

Insect and locality	C o l l e c t e d o n	Date and notes
Conocephalus cinereus---Cont'd.	Picinus communis Solanum tuberosum Verbesina turbacensis Vernonia brachiata	Viola odorata f Vitis tiliaefolia f Zea mays f
Ellipes minuta (Scudd.) Paso Ancho	Allium sativum Aleurites moluccana Artemisia absinthium Beta vulgaris cicla Brassica oleracea capitata Celosia argentea Citrus sinensis Cucurbita pepo	Cucumis sativus Cynara scolymus Gossypium barbadense Ipomoea batatas Lactuca sativa Petroselinum hortense Tragopogon porrifolius Triticum aestivum
Epilampra abdomennigrum Deg. Paso Ancho San Pedro	Colocasia esculenta Musa paradisiaca	January, June
Erioloides longipennis Redt. San Pedro	Amygdalus persica Hicoria pecan	May. Damage by egg punctures
Eurycotis biolleyi Rehn San Pedro	Cobaea scandens Fuchsia sp.	June to August
Holocompsa azteca Sauss.	Erythrina rubrinervia	August
Insara intermedia (Brunner) San Isidro de Coronado Tarrazu	Acalypha wilkesiana Acnistus arborescens Artemisia absinthium Eauvardia humboldti Brassica japonica Eyrsonima crassifolia Calathea zebrina Calyptranthes costaricensis	Throughout the year f f f f f f f f f f
	Musa paradisiaca Pelargonium zonale	f
	Chenopodium ambrosioides Cleome spinosa Cobaea scandens Conostegia lanceolata Cosmos sulphureus Crotalaria fulva Croton gossypifolium Dahlia rosea Datura candida	f f f f f f f f

Insect and locality	Collected on	Date and notes
Insara intermedia--Cont'd.	Desmodium spp. Dianthus caryophyllus f Diospyros kaki f Erythrina rubrinervia f Fragaria chiloensis Garcinia tinctoria Hamelia erecta Impatiens balsamina f Indigofera suffruticosa Ipomoea purga Ipomoea tillicaea Iresine herbsti f Iris laevigata f Jacobinia coccinea Jussiaea decurrens Lactuca sativa Lippia berlandieri Loniceria japonica Theobroma cacao	Lycopersicum esculentum f Malacra radiata f Mentha sativa f Mirabilis jalapa f Nicotiana tabacum f Pelargonium graveolens Persea americana Phoenix canariensis Polygum punctatum f Randia mitis f Rosmarinus officinalis f Salvia splendens f Sapium caudatum f Sida rhombifolia f Tagetes patula f Thuja orientalis f Viola odorata f Zinnia elegans f
Latiblattella sp. Waldeck		July
Microcentrum ephippium Burm. San Pedro	Amaranthus spinosus	November
Neoxabea bipunctata (Deg.) Paso Ancho Tarrazu	Alnus acuminata Bunchosia costaricensis Coffea arabica Indigofera suffruticosa Malus sylvestris	Musa cavendishi Pelargonium zonale Tournefortia foetidissima Vernonia brachiata April to December
Orphulella punctata (Deg.) San Pedro	Solanum tuberosum Grass	January

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Panchlora cubensis</i> Sauss. Paso Ancho	<i>Guilielma utilis</i>	June, August Household pest
<i>Paratettix mexicana</i> abortus Hancock Alajuelita San Rafael de Coronado Santa Ana	<i>Bidens pilosa</i> <i>Cucurbita pepo</i> <i>Dianthus caryophyllus</i> <i>Fragaria chiloensis</i> <i>Jussiaea decurrens</i> <i>Rubus</i> spp. (Blackberry)	Throughout the year
<i>Paroecanthus mexicanus</i> Sauss.? Paso Ancho	<i>Zantedeschia aethiopica</i>	October. In flower
<i>Pycnopalpa bicordata</i> (Serv.) Tarrazu	<i>Coffea arabica</i>	September
<i>Rhipipteryx biolleyi</i> Sauss. Paso Ancho San Isidro de Coronado	<i>Althaea rosea</i> <i>Blighia sapida</i> <i>Byrsonima crassifolia</i> <i>Canarium odoratum</i> <i>Celosia cristata</i> <i>Chrysophyllum cainito</i> <i>Cirsium costaricensis</i> <i>Codiaeum variegatum</i> <i>Coffea arabica</i> <i>Conostegia lanceolata</i> <i>Dianthus caryophyllus</i> <i>Dillenia indica</i>	Throughout the year
<i>Rhipipteryx tricolor</i> Sauss. Juan Vinas Orosi	<i>Asclepias curassavica</i> Grass	February, November
<i>Schistocerca impleta</i> Walk. San Isidro de Coronado San Isidro del General Rancho Redondo	<i>Althaea rosea</i> <i>Annona reticulata</i> <i>Aristolochia rigens</i> <i>Artocarpus communis</i> f	Throughout the year
	<i>Baccharis nervosa</i> f <i>Brassica oleracea capitata</i> <i>Callistephus chinensis</i> <i>Cela pertandra</i>	

Insect and locality	C o l l e c t e d o n		Date and notes	
Schistocerca impleta--Cont'd.	Citrus sinensis	f	Pisum sativum	f
	Codiaeum variegatum	f	Pithecollobium saman	f
	Coix mayuen		Poinciana regia	f
	Cecropia sp.		Prunus cerasifera pis-	f
	Crotalaria fulva		sardi	
	Crotalaria striata	f	Punica granatum	f
	Cyperus alternifolius		Rheum rhabonticum	f
	Diphysa robinoides		Rosa spp.	f
	Gomphrena globosa		Rumex crispus	f
	Gossypium barbadense		Saccharum officinarum	
	Guilielma utilis	f	Sedum sp.	
	Helianthus annuus	f	Solanum tuberosum	
	Heliotropium peruvianum	f	Tephrosia toxicaria	
	Melinis minutiflora	f	Thuja orientalis	
	Nicotiana tabacum	f	Viola sp.	
	Pennisetum clandestinum	f	Zinnia elegans	f
Scopiorus mucronatus S. and P. San Pedro	Bryophyllum pinnatum		Randia mitis	November
	Croton gossypifolium			
Stilpnoclora azteca (Sauss.) Paso Ancho	Acalypha wilkesiana	f	Sapium aucuparium	f
	Bixa orellana	f	Trema micrantha	July
Syntecna tarasca (Sauss.) Guadalupe	Acnistus arborescens		Malus sylvestris	January, May, June
Paso Ancho	Amydalus persica	f	Manihot esculenta	July, August,
San Isidro de Coronado	Cajanus bicolor	f	Morus rubra	September
San Pedro	Calliandra graniflora	f	Pelargonium zonale	f
	Coffea arabica	f	Rosa spp.	f
	Citrus sinensis	f	Trema micrantha	f
	Dombeya wallichii		Vernonia brachiata	f
	Eriobotrya japonica	f	Zea mays	
	Grevillea robusta			

Insect and locality	C o l l e c t e d o n		Date and notes
Taeniopoda centurio (Drury) Limon Santa Ana Waldeck	Carludovica palmata Citrus aurantiifolia Codiaeum variegatum Nephrolepis sp.	f f f	April, May, July, September
Taeniopoda varipennis Rehn Santa Ana	Canna indica Dolichos lablab Hemerocallis fulva	f f f	November
	Panicum maximum Saccharum officinarum Hibiscus esculentus Panicum maximum Pelargonium zonale	f f f	

D I P T E R A

Achaetoneura rileyi Will. San Pedro	May. Parasite of Dicentria violascens H.-S.
Anastrepha ludens (Loew) San Jose	April, July. Reared in fruit.
Casimiroa edulis	F

Insect and locality	C o l l e c t e d o n		Date and notes
Calaminettia geminata (F.) Waldeck	Theobroma cacao		July
Camptoprosopella xanthoptera Hendel	Triticum aestivum		April, July, December. Reared in fruit.
Carpolonchaea pendula Bezzi	Manihot glaziovii	f	February, August
Dermatobia hominis (L.) Santa Ana	Dog		July
Desmometopa m-nigrum Zett. San Pedro			February
Dichelacera marginata Macq. San Isidro del General	Horse	f	February
Dilophus melanarius V. de Wulp Paso Ancho San Isidro de Coronado	Myrosotis sylvatica Oreopanax sp. Pennisetum purpureum	f f	April, August Rosmarinus officinalis Zantedeschia aethiopica f
Eusimulium callidum D. and S. Paso Ancho	Man Calf		August, September, October Abundant on calf
Eusimulium metallicum (Bell.) La Carpintera Paso Ancho	Man Calf		January, October
Eusimulium quadrivittatum (Loew) Paso Ancho	Man		April
Eutreta sparsa (Wied.) Paso Ancho San Pedro	Citharexylum caudatum		January, October. Maggots in galls
	Hibiscus sabdariffa		

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Euxesta sororcula</i> Wied. San Pedro	Zea mays	October (Adult only)
<i>Euxesta stigmatias</i> Loew San Isidro del General San Pedro	Zea mays	March, June, September
<i>Rhynchosciara brevicornis</i> Rubs.? La Carpintera Paso Ancho	Impatiens balsamina Indigofera suffruticosa Trichilia havanensis Vernonia brachiata	
<i>Stomoxys calcitrans</i> (L). San Pedro		August, September
<i>Stratiomyia subalba</i> Bellardi Paso Ancho	Minga roussovia	October
<i>Tetraenauresta obscuriventris</i> (Loew) Cartago Paso Ancho	Amaranthus spinosus Calea urticifolia axillaris Calypttranthes costaricensis Fibiscus rosa-sinensis Tixora chinensis	February to July
<i>Toxotrypana curvicauda</i> Gerst. Atenas San Pedro	Gonolobus edulis f	August. Reared in fruit. September
<i>Volucella purpurifera</i> Bigot Paso Ancho	Philadelphus trichapetalus	September. Eating pollen from <i>P. trichapetalus</i> .
<i>Volucella tricineta</i> Bigot Paso Ancho	Philadelphus trichapetalus f	September. Eats pollen.

Insect and locality : Collected on : Date and notes

H Y M E N O P T E R A

Atta sexdens (L.) Alajuela Heredia Limon Turrialba			January, February, May, August. General feeder. Injurious and very abundant.
Bombus ephippiatus Say Rancho Redondo	Trifolium pratense		March. Feeds in flower.
Bombus mexicanus Cress. San Pedro	Coronilla Leonurus sibericus	f	July, August. Feeds in flower.
Gymnopolybia sulfureofasciata Ducke Paso Ancho Sofia ? Waldeck	Acnistus arborescens Boehmeria nivea Canarium odoratum Cestrum lanatum Cirsium costaricensis Congea velutina	f	Throughout the year. Taking momentum from leaves.
Megachile zapoteka Cress. San Pedro	Rose		April. Serious injury to a few plants by cutting the leaves.

Insect and locality	C o l l e c t e d o n		Date and notes
Odontomachus haematoda (L.) San Pedro	Persea americana		October
Polybia fasciata Sauss. Paso Ancho	Cleome spinosa		April. Eating Pieris clodia Bdv.
Solenopsis geminata (F.) San Isidro del General Santa Ana Tarrazu Turrialba	Ananas sativus Casimiroa edulis Cassia alata Citrus limetta Citrus paradisi	f f f f f	Ixora chinensis Rheedia sp. Terminalia catappa Vigna sesquipedalis Zantedeschia aethiopica f
Tatua tatua (Cuvier) Paso Ancho	Dovyalis hebecarpa impatiens balsamina	f	August
Trigona amalthea (Oliv.) Santa Barbara de Heredia	Zea mays		August taking pollen.
Trigona cupira Smith Paso Ancho	Bocconia frutescens Calonyction aculeatum Coriandrum sativum		June, August, October. Feeds in flower.
Trigona ruficrus corvina Cr. Waldeck San Isidro del General	Theobroma cacao	f	April. Eats leaves and pods of cacao
Trigona silvestriana Vachal Crosi Ujarras Waldeck	Cassia sp. near alata Citrus paradisi Citrus sinensis Eucharis sp.	f f f f	February, July, November. Scallops the leaves and eats flowers.
Tripoxylon rugifrons Cameron Paso Ancho	Conostegia lanceolata		April
Xylocopa frontalis (Oliv.) San Isidro del General	Gliricidia maculata	f	February; abundant at flowers

Insect and locality	: C o l l e c t e d o n	: Date and notes
T H Y S A N O P T E R A		
Liothrips zeteki Hood	Phoebe tonduzii	September
Thrips tabaci Lind.	Allium copa f	January to June; October, November. Injurious
San Isidro de Coronado		
San Pedro		
I S O P T E R A		
Kalotermea holmgreni (Banks)	se	March to July. Attacked principal building of Escuela Nacional de Agri- cultura.
Paso Ancho		
San Pedro		
Nasutitermes costalis (Holmg.)	Elaeis guineensis	
D E R M A P T E R A		
Doru lineare (Esch.)	Bixa orellana	February, July, August
San Isidro del General	Grass	
San Pedro	Mentha sativa f	
Santa Ana		
Metrosura ruficeps (Burm.)	Musa paradisiaca	
Guadalupe		

Insect and locality	Collected on	Date and notes
<i>Psalis americana</i> (Peauv.) Guadalupe	<i>Musa paradisiaca</i>	January
M A L L O P H A G A		
<i>Bovicola caprae</i> Gult San Pedro	Goat	February, August. A common pest of goat.
<i>Goniodes dissimilis</i> Nitz. San Pedro	Chicken	May
<i>Goniodes meleagridis</i> L. San Pedro	Turkey	December
C O R R O D E N T I A		
<i>Nesous flavatus</i> Navas Guadalupe La Carpintera San Isidro de Coronado	<i>Citrus sinensis</i> <i>Coffea arabica</i> <i>Persea americana</i> <i>Piper auritum</i>	February, May, December
S I P H O N A P T E R A		
<i>Xenopsylla cheopis</i> (Rothsch.) San Pedro	Rat	June

Insect and locality	C o l l e c t e d o n	Date and notes
A R A C H N I D A		
Anychus clarki McG. San Pedro	Chrysophyllum cainito Citrus aurantium	f
Tetranychus telarius (L.) (Epitetranynchus althaea von H.) San Pedro	Coffea arabica	Citrus sinensis January, March April. Checks growth and prevents budding of young stock. March

